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Survey OF BUSINESS

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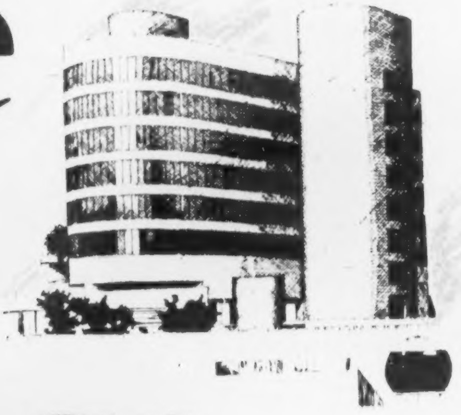
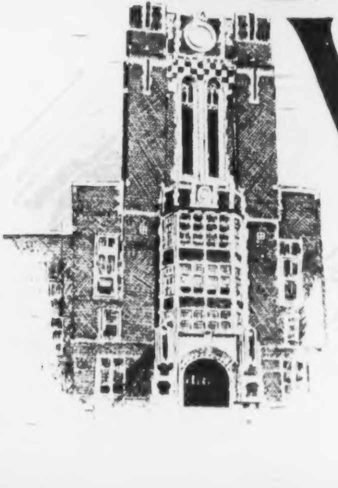
Faculty Perspectives on the Global Village





A TOOL FOR ECONOMIC DEVELOPMENT

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JUNE
1989
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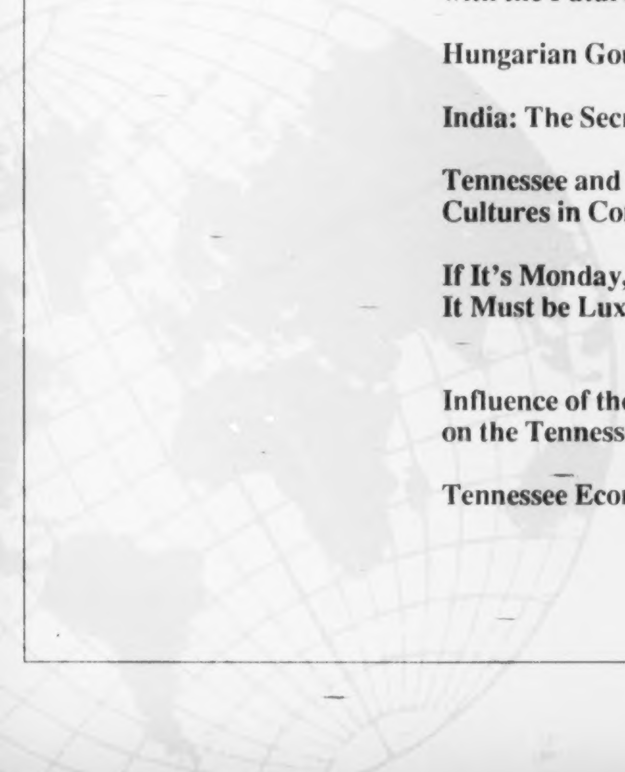

SURVEY
OF BUSINESS

C. Warren Neel, Dean
College of Business Administration

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COMMENTS

The Global Village! When I first heard that term back in the 1970s, it immediately excited my imagination. It provided a new way of circumscribing order in a diverse and complex world. The word "village" suggested dependence, order, and fragility. It was a simple term, but a powerful one in its implications.

My son, a student of cartography for this semester, reminded me of the village concept as he shared the science of map making with me. He relayed the various methods of map making and their shortcomings, noting how the size of some countries was distorted by a particular mapping method in order to assure the accuracy of the shape and size of another. The choice of method could, he suggested, give more importance to some areas rather than others. It was all a matter of objectives and perspective. I shared with him my observation that often countries place themselves at the center of regional maps, perhaps distorting boundaries in their own favor, perceiving themselves as the center of things.

Again I reflected on the village as I read the articles submitted for this publication. Each article has a different perspective, and each is independent, yet they are all related and collectively build a mosaic of experiences from countries that span the globe.

As evidenced by this volume, the College of Business Administration has made a commitment to become an integral part of the Global Village dialogue, bringing an ever-sharpening focus to the definition of this village and its issues in the intellectual life of the University. Proof of this integration can be found in our foreign exchange programs and through grants such as the one next spring wherein Dave Hake, Director of CBER, will conduct a tour of university rectors from six Eastern Bloc countries as they assess the role of American universities in regional economic development (see p. 47). We look forward to further involvement in the Global Village.

C. Warren Neel, Dean
College of Business Administration

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Coral Sea
AUSTRALIA
Tasmania
Indian Ocean

MANAGEMENT IN AUSTRALIA: "NO WORRIES"

by H. Dudley Dewhirst

Dudley Dewhirst, Professor in Management, is the third UT professor to participate in a faculty exchange program initiated between the UT College of Business Administration and Deakin University in Australia.

As a Professor of Management, I had known for some time that management practice anywhere in the world is invariably influenced by local culture. At least I knew it in a logical, intellectual way. But I wasn't prepared for the magnitude of differences in managerial practice I encountered in the first half of 1987, when I traded places with Chris Orpen, a professor at Deakin University in Australia. As the exchange worked out, we traded jobs, houses, cars and pets for that six months. So the Orpen family moved to Knoxville, and I, along with wife Zara and two teenage children, took up residence in Geelong, a city of about 150,000 located in the state of Victoria about 50 miles west of Melbourne.

From our first day, when we saw the kangaroos on the golf course at Anglesea, to our last day, when we drove down the Great Ocean Road, we enjoyed seeing the natural beauty of the country, visiting its cities, and making friends with some of its citizens. Aside from cultural and scenic surprises, I was also amazed at the surprises I encountered in the field of management. After all, Australia and the U.S. share a common heritage as well as a common language (although some would say we are *separated* by a common language).

Furthermore, Australia is a modern, developed country with a relatively healthy economy. Like the U.S., Australia is well endowed with natural resources and has a strong agricultural base. Manufacturing is relatively weaker, but is growing. Like the

U.S., Australia also has a trade deficit and a federal budget deficit. While its standard of living is not quite as high as that we enjoy, most nations in the world would happily trade their economic condition with the Australians.

With that degree of similarity, one would think that Australian managers would practice their profession much like managers in America. But they don't. The reason they don't is that they have to adapt to a different culture which would make some American managerial practices ineffective. By culture, I mean a set of beliefs and attitudes which are based on basic values. These beliefs and attitudes provide a sense of "doing the right thing" and thus provide a guide to action. Cultural influence is subtle, since the values are deeply ingrained and rarely articulated, much less called into question. Because culture is not easily measured, I need to emphasize that what follows is based on personal observation and intuition and is therefore quite subjective.

"No worries. She'll be right."

There are a number of cultural contrasts between Australia and the United States. One of the clearest is that the Australians are more relaxed, less concerned about completing projects than are their American counterparts. While quality is highly valued, there seems to be a feeling that if one keeps plugging away, the job will eventually be completed. What is important is persistence, and if it doesn't get done today, tomorrow will be all right. Winning, at least in the short run, is less important than fighting the good fight. The Australians' major holiday related to warfare is Anzac Day, which celebrates a battle gallantly fought, but lost. That would be equivalent to Americans celebrating Pearl Harbor.

Speaking of holidays, the Australians' more relaxed culture is also reflected in the large number of holidays. They even celebrate the Queen's birthday, although they have long been independent. Australians love holidays and most use them fully for sports, camping and travel. Virtually all the stores, shops and businesses close at noon on Saturday and do not open until Monday, so that everyone can enjoy the weekend.

"G'day Mate."

The Australian working man believes it is right to support his mates, or fellow workers. This attitude usually results in highly cohesive, mutually supportive work groups. Australians work together, play together and drink together. The same thing occurs in the U.S., but the "mateship" attitude isn't as strong. The strong solidarity of Australian workers contributes to the prevalence of strong unions which not only use their power to improve earnings and working conditions of their members, but also to influence public policy and occasionally just to demonstrate their power.

A number of years ago, when an ill-advised plan to build office buildings on the site of the first convict settlement on Sydney Harbor was approved by government, unions simply refused to work on the project. As a result, the area, known as "The Rocks," was preserved. It was later reconstructed and is now Australia's second most visited tourist attraction (the Opera House is first).

But unions are not always responsible in their use of power. In a dramatic display of power on the first weekend of the Australian Rules Football season, the Transport Workers Union went on strike to shut down the extensive system of trains in Melbourne. Since greater Melbourne is the home of six teams, it was a major disruption. The strike was called to protest the lack of two-way radios for guards on the trains. It seems that a guard had been beaten up by several ruffians several weekends previously. As a result, the union had demanded two-way radios for all guards so they could call for help if necessary. Management agreed, and promptly ordered the radios. But the radios had not yet arrived. Although the guards had worked for years without radios and with few incidents which would require their use, the union said it was now unsafe to work under those conditions, and its members walked. Amazingly, there was little outcry, and no call to limit union power in the face of what most Americans would judge to be a gross abuse of union power.

"I'm all right."

In Australia, it is considered normal for the sons and daughters of working class parents to follow the same career pattern as their parents. Upward mobility into professional careers with higher pay and prestige simply isn't valued as much as it is here. For one thing, there is more pride in blue-collar jobs, such as laborer or construction worker, than there is here.

Less value is placed on education. Young people can quit school at age 15 and about half of them do. Only 10 percent of young Australians go on to college (in spite of a remarkably low tuition fee of $250 a year). As a result, high school curricula include more vocational courses to prepare students to enter the work force. This is true only in Government (public) schools. There are also a number of public (read private and quite expensive) schools which are geared to train future professionals and leaders. The well-to-do, the professionals and a minority of the less affluent send their children to these schools.

In summary, Australian society seems to be both more egalitarian (as seen in the greater respect for nonprofessional jobs) but also more closed, in terms of upward mobility. Workers, therefore, are generally more satisfied with doing their day's work and less interested in becoming managers than are their American counterparts.

Comparing Australian and American Managers

Such cultural differences are, I believe, responsible for differences in managerial practice. Three aspects of managerial behavior that seem significantly influenced are the following:

- Entrepreneurship and innovation
- Participative management
- Managerial patience and persistence

Entrepreneurship and Innovation. Based on an admittedly modest amount of direct observation, I concluded that Australian managers are less entrepreneurial and less innovative than American managers. They are simply less interested in and less willing to try something new. It is interesting to note, as I recall reading in *The Age* (Melbourne's leading newspaper) that of the six most successful Australian entrepreneurs (in 1987), only one was a native-born Australian.

This is, I believe, a result of cultural influences. The more relaxed attitude that pervades the culture would logically seem to depress levels of entrepreneurship and innovation. In addition, the strong unions resulting from the "mateship" aspect of the culture may constrain the managers' capability to be entrepreneurial and innovative. Finally, a culture which encourages tacit acceptance of one's "place" in the socioeconomic sense would also tend to discourage entrepreneurial activity.

Participative management. Australian managers are less participative than American managers. Several years ago, I developed a leadership exercise to explore how much managers delegate decisions to their subordinates and what criteria they use in making the delegation decision. The exercise consists of eight short scenarios, each describing different situations in which a manager is to delegate a task to a subordinate. Managers complete the exercise by indicating how much they would delegate in each situation. The total score on the eight scenarios provides a reasonably good measure of how participative managers are. I gave this exercise to about 40 Australian managers and compared their responses to those of American managers. I found that the Australian managers delegated less than or about the same as the Americans in most of the scenarios (with one notable exception, which will be discussed later). The total scores indicated that the Australians were less participative than the Americans.

Again, a logical explanation can be intuited from the cultural differences between the two countries. First and foremost, the culture encourages Australian workers to take more pride in the job they have and aspire less to move up in the hierarchy. Thus, they are less interested in taking over part of the manager's role that would occur if the manager were more participative. Additionally, the strong mateship aspect of the culture would encourage the worker to stick with his mates rather than seek closer ties with management. The extension of the mateship culture which produces strong unions would also limit the feasibility of participative management. Strong unions are more likely to explicitly define worker responsibilities and resist attempts at participative management (as, for example, the Machinists Union has done in this country).

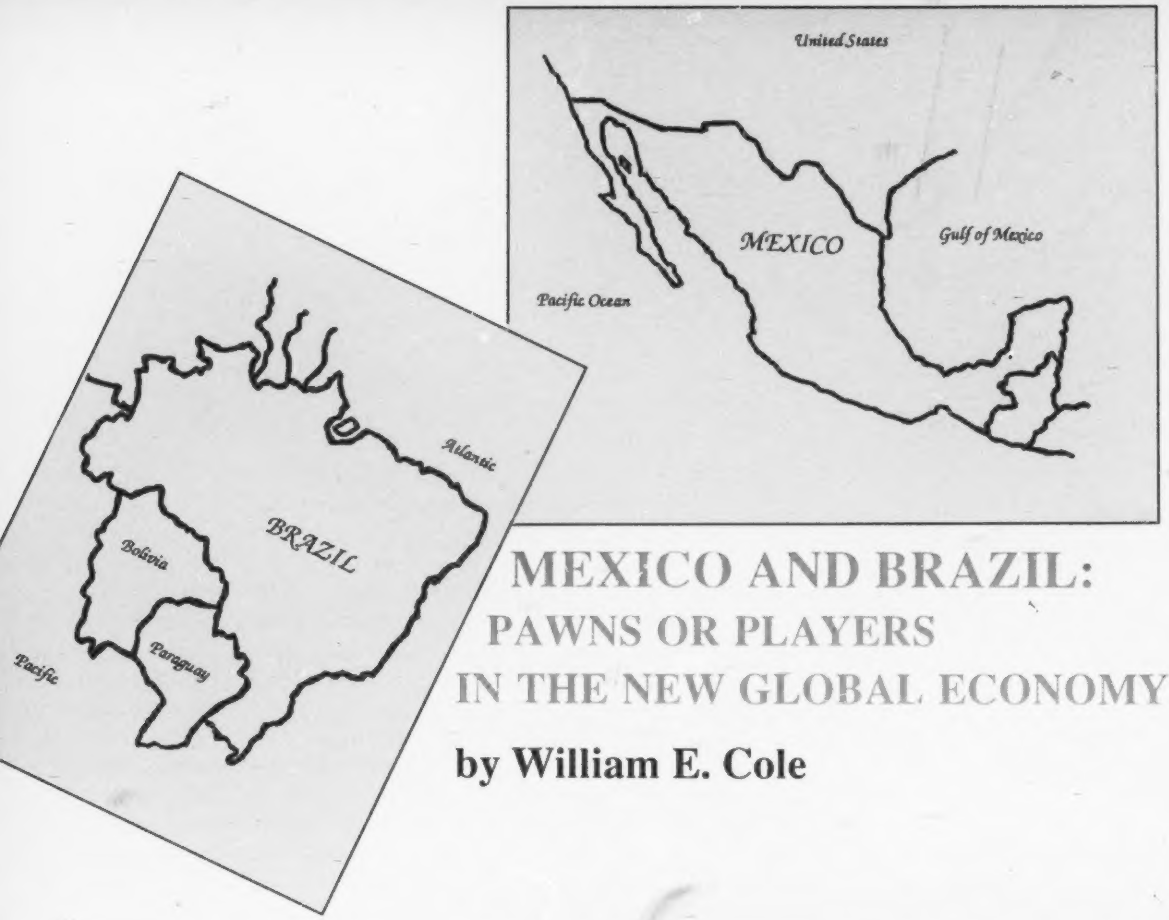
Managerial patience and persistence. Australian managers are more persistent and more patient than their American counterparts. They seem to have more of a long-term orientation than we do. The one scenario from the leadership exercise in which Australian managers delegated more than their American counterparts describes a situation in which the production line has been shut down because of a design flaw in an electrical control circuit. The manager of the design group is asked how much he would delegate to the design engineer. The possibility that this circuit would cause a problem had previously been discussed by the manager and the engineer. Further, the problem is described as technically simple and the engineer is known to be very competent. In this scenario, the Australian managers delegate considerably more than the Americans.

Once again, cultural differences help explain why. First, the Australian managers are more relaxed. It also seems likely that they are less concerned with immediate results and upward mobility than the typical American manager. The counterpart to that orientation in the American culture is relevant; namely, the short-term orientation that pervades our culture, especially our managerial culture. This aspect of our culture has been called the "Maypo Syndrome" (after the commercial promoting Maypo in which the little kid jumps up and down screaming: "I want it now"). Among American managers, this cultural value is seen in the desire *never, never* to shut down the production line. And if it is shut down, the way to become a hero is to be directly involved in starting it up again. Thus, the single instance in which the generally more participative American managers were less participative occurred when the production line was shut down.

Whose Managers are Best?

The question remains as to which set of managers is doing a more effective job. The answer, I believe, comes in two parts. First, it can be argued that the most effective managers are those that adapt to the culture in which they must manage. On this basis, the Australian managers are more effective in Australia, and the Americans are more effective here. The problem with this argument is that the values imbedded in a culture are not always those which support changes and new directions that a nation (or company) might need because of a changing environment. I believe there is truth in both arguments. That is, an American manager moving to Australia (and the Aussie coming here) will be more effective if he adapts his behavior to fit the local culture. On the other hand, Australia clearly needs to become more entrepreneurial to capitalize on its vast store of natural resources and the potential of its people. Certain aspects of its culture and corresponding managerial norms are more appropriate for its former status as a colony, not for an independent nation striving to become a major economic force in the Pacific.

The U.S. has a similar problem of maladaptive culture and management practice. It is the "I want it now" syndrome that is reflected in our general managerial impatience, our unwillingness to undertake and persist in change efforts that are vital to our ability to maintain our place in an increasingly competitive world marketplace. Our culture and corresponding managerial practice are more appropriate for our former status as the only sizable nation with capital, technology, skilled work force, and entrepreneurial drive, not for a nation seeking to improve its competitiveness in today's global marketplace. ■



MEXICO AND BRAZIL: PAWNS OR PLAYERS IN THE NEW GLOBAL ECONOMY?

by William E. Cole

Bill Cole, Professor of Economics, has a long association with Mexico, starting in graduate school with a fellowship from the Department of Education under the National Defense Education Act and a Fulbright-Hays Fellowship for Latin American studies. His recent visits to Brazil have been funded through grants from the Tinker Foundation and the UTK Management Development Center.

Although plagued with problems of international debt and troubled with internal political uncertainties, Brazil and Mexico are increasingly important actors in the emerging global economy. Incipient changes in the role Mexico plays in the world economy are evidenced in recent news. A current issue of the *New York Times* informs us that "Mazda's 323 subcompact provides the base for the Mercury Tracer, built by Ford in Mexico." In this case, Japanese product design, established American markets, and Mexico's labor advantages are all brought together for the sake of competitiveness. The same issue reports that the Mexican Vitro Company has tendered an offer for the U.S. Anchor Glass Company and that Vitro's technological and financial strength may be capable of healing Anchor's wounds. These examples accurately portray Mexico as an economy with a surplus of trainable labor, but also one that has a number of areas of technical sophistication.

For its part, Brazil has aggressively entered a number of export markets that were once the domain of the advanced economies. Those exports include automobiles and components to a wide range of countries, including the U.S. (the VW "Fox"), military and commercial aircraft to firms in dozens of countries, and "state-of-the-art" oil exploration equipment. Now the largest developing market economy, Brazil is a significant exporter of armaments. The time is long past when the roles of either Brazil or Mexico could be usefully characterized as raw materials provisioners and tourist havens. Two standard measures of the relative significance of nations are population and gross domestic product (GDP), as defined in the note to Table 1. Those variables are illustrated in the accompanying tables in which several other countries in addition to Brazil and Mexico are included for purposes of comparison. The inclusion of Argentina, the third-largest economy in Latin America, lets the reader appreciate the extent to which Brazil and Mexico dwarf their fellow Latin American countries. (Island nations aside, nine of their neighbors have populations of 10 million or less.)

Of special interest in Table 1 is a comparison of growth rates of GDP for the several countries. Between 1965 and 1980 the performances of both Brazil and Mexico exceeded those of the referenced developed countries, including Japan. (In fact, it is noted that the U.S. economy has never enjoyed a sustained period of growth comparable to the rates shown for either Mexico and Brazil for the period 1965-1980.) In the eighties, however, the impact of the tremendous international debt on the Latin American economies was reflected in falling growth rates and accompanying high rates of inflation. Nevertheless, Brazil's reduced growth rate was comparable to that of West Germany and the U.K. As for the Mexicans, they fared better than the Brazilians as inflation fighters, but failed miserably in the growth arena.

Economic Consequences of Growth

In both Brazil and Mexico, growth is a basic requirement rather than a luxury because of the fact that their respective populations are growing rapidly, as witnessed by the data presented in Table 2. A startling feature that leaps out of Table 2 is a projection of growth that shows the combined populations of Mexico and Brazil expanding in fourteen years by an amount almost equal to the 1986 population of Mexico. Latest reports on the demographic situation in Brazil suggest that the growth between 1986 and 2000 may be more on the order of 32 million, still a healthy increase. Furthermore, that expansion is almost 10 times the expected growth of West Germany, Japan, and the U.K. combined. Such mushrooming growth has many economic consequences. For one thing, the potential growth of per capita income is severely depressed. Indeed, if it had not been for the very high rates of population growth, the impressive growth of GDP in both countries during the 1965-80 period would have translated into levels of per capita income more or less twice those actually realized. Moreover, we see that in recent years (1980-86), the Mexican population has grown at much higher rates than the GDP, resulting in a decline in the average level of living. Brazil realized only a modest per capita gain during the same crisis period. This flattening effect on the growth of per capita income adversely affects the growth of such markets as automobiles and major appliances. However, some markets will tend to expand simply because of the increase in the number of consumers. That is especially the case for foodstuffs and products catering to the needs of children, e.g., the tremendous pressure on government to increase expenditures on education and health.

TABLE 1
Comparative Economic Indicators

	GDP: 1986[1] (millions of dollars)	Growth Rate of GDP[2] (1965-80)	Growth Rate of GDP[2] (1980-86)	Inflation Rate[3] (1980-86)
Brazil	206,750	9.0	2.7	157.1
Mexico	127,140	6.5	0.4	63.7
Argentina	69,820	3.4	(-)0.8	326.2
Korea (Rep.)	98,150	9.5	8.2	5.4
India	203,790	3.7	4.9	7.8
Germany, F.R.	891,990	3.3	1.5	3.0
Japan	1,9550,650	6.3	3.7	1.6
U.K.	468,290	2.2	2.3	6.0

1. Gross domestic product (GDP) refers to gross national product less payments to foreign factors of production.
2. Average annual rate of growth.
3. Average annual rate of increase in the GDP implicit deflator.

Source: World Bank, *World Development Report*, 1988.

TABLE 2
Population Growth

		Population Size (millions)		
	Annual Growth Rate (percent)[1]	1986	Projected for Year 2000	Projected Growth
Brazil	2.2	138	180	42
Mexico	2.2	80	107	27
Argentina	1.6	31	36	5
Korea (Rep.)	1.4	41	49	8
India	2.2	781	1,002	221
Germany, F.R.	(-)0.2	61	59	(-)2
Japan	0.7	121	129	8
U.K.	0.1	57	58	1

1. 1980-86

Source: World Bank, *World Development Report*, 1988.

External Debt

The recent slowing of growth in Brazil and the stagnation in Mexico are generally held to be associated with the pressures of external debt. Between 1981 and 1986, Brazil's public sector external debt grew from $44 billion to $83 billion, and Mexico's from $43 billion to $75 billion. In both cases, the size of the debt was greatly influenced by the escalation of petroleum prices and the ensuing high interest rates in the U.S. and Europe. Brazil borrowed because it required considerable oil imports and Mexico borrowed heavily to exploit its newly-found petroleum reserves. Much of the initial borrowing was on a relatively short-term basis, so that when interest rates escalated, hard currency reserves were quickly exhausted as loans were refinanced. Although both countries have faced burgeoning debt problems in the eighties, Brazil has managed to maintain a respectable rate of growth, while the Mexican economy has fallen flat. Part of that growth was tied up in Brazil's relatively successful efforts to develop energy self-sufficiency. Moreover, because its economy was expanding during the eighties, albeit slowly, the burden of Brazil's external debt grew by much less than that of Mexico. The burden of debt is calculated either by dividing the outstanding principal by GNP or by dividing the annual debt service by GNP.

Responses to the IMF

The difference in growth performances during the eighties was partly due to different responses to pressure from the International Monetary Fund (IMF), which laid down similarly tough austerity conditions to both countries as a prerequisite for assistance. Mexico was a model supplicant, reducing subsidies that benefited the poor, cutting its federal budget deficit, and selling off state-owned enterprises. Inflation was reduced, but growth was wrung out of the economy. In comparison, Brazil's response to the IMF was half-hearted; few public enterprises were privatized and deficits continued to fuel inflation. Consequently, aggregate demand and employment grew at much better rates than in Mexico. A case might therefore be made that Brazil was justified in refusing to accept austerity and privatization in place of its "proven" growth formula. However, the IMF believes that Mexico's years of austerity are laying the groundwork for future prosperity. Accordingly, recently Mexico has apparently been rewarded for her model behavior with some yet-to-be determined level of debt reduction. It will be interesting to see if the "bad boy" Brazilians fare any better when it is their turn to negotiate debt reduction. Some believe that Brazil will get at least as good a deal without having to reduce living standards further.

During the eighties, net foreign investment in both Brazil and Mexico appears to have declined markedly. However, because they include both inflows and outflows, data on net foreign investment mask some very interesting phenomena. While some traditional sources of foreign investment have dried up and some local capital has fled from both countries, new sources and new forms of foreign investment have been emerging. For one thing, Japan has apparently chosen Brazil for a position of importance in the development of its own global economy. To implement the strategy, the Japanese have shown interest in all sectors of the economy and they have been willing

to take minority ownership positions in joint ventures and to transfer advanced technology to those ventures. Both of those features are well received by Brazilians who have complained in the past about the allegedly low levels of benefits derived from the presence of U.S and European transnationals. Over the past several years, there has also been evidence of significantly increased Japanese investment in Mexico, from tourism to manufacturing. Both Brazil and Mexico present sizeable internal markets and both produce some raw materials that the resource-poor Japanese economy is forced to import. There are broader implications, however, to which we shall return shortly.

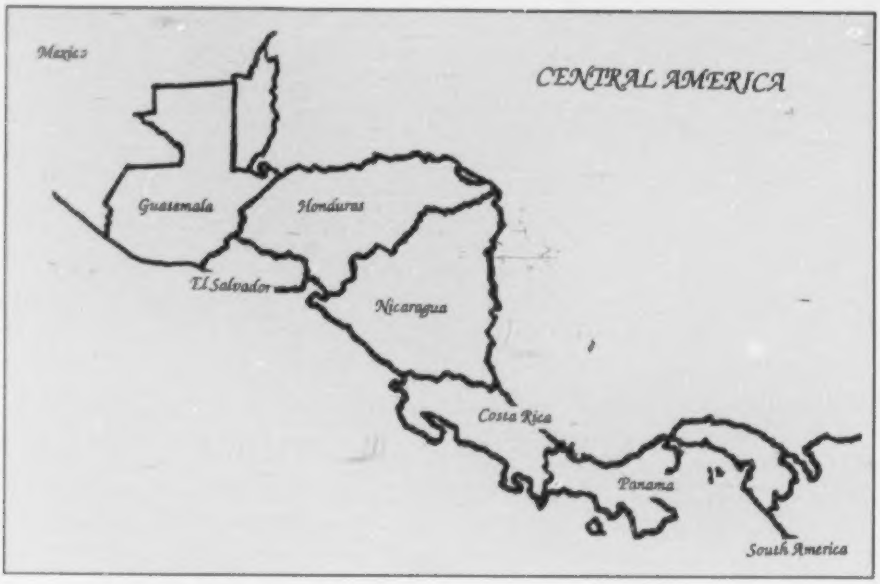
Economic Effects of the Maquiladora Sector

In Mexico, there has also been impressive growth of output and employment in the *maquiladora* sector, a zone that runs along the border with the U.S. within which transnational plants operate on the basis of importing duty-free inputs and exporting duty-free products into the U.S. market. During the eighties, the number of *maquila* plants has more than doubled, with total employment now in excess of 350,000. This zone has been attractive to U.S. firms that have sought more congenial labor conditions to help them meet global competition. More recently, a considerable amount of overseas investment has been involved in the maquiladora zones. In addition to Japan and West Germany, investing companies come from Korea, Taiwan, and Singapore.

What we may be witnessing is a new stage in the repositioning of global manufacturing. The point is that a major focus of this repositioning is the U.S. market. The U.S., in its informal partnership with the IMF, has pressured both Mexico and Brazil to move toward free trade by reducing protection of its industries. It might therefore appear unseemly if the U.S. were to turn around and increase protection against Brazilian or Mexican exports. Possibly we have opened the door to a future in which high-quality products flow into the U.S. in large volumes from firms located South of our borders. Although the transnational exporting firms would utilize 'home-country' product design and production technology, many would feature majority ownership by Latin Americans, making the threat of protective legislation that much more unlikely. Motives for these investments might be viewed as more political than economic.

Furthermore, to meet the intensity of "next-door" competition, more U.S. firms may be forced into joint ventures in Latin America (e.g., Ford and Mazda in Mexico) while even more may take advantage of Latin American labor conditions and the free flow of trade provided by the *maquiladora* system.

Both Mexico and Brazil should become more important players in the emerging global economy, in the sense that their exports should account for a growing proportion of global trade in manufactures. On the other hand, because the key decisions that will shape the structures of those economies will be made by foreign investors, each will remain in a relatively dependent state. Moreover, because history placed an economic giant on its northern border, Mexico's state of dependency on external conditions is likely to be much more severe than that of Brazil. ■



CRISIS IN CENTRAL AMERICA

by Gary N. Dicer

Gary Dicer, Professor of Marketing and Transportation, recently visited Central America at the invitation of the Central American Institute of Business Administration (INCAE). His trip was funded through a CBA research grant.

What crisis? It has been months since the media has treated us to a spectacular headline about Central America. The end of the Reagan administration brought to a close our public concern with the "threat of communism" and the Ortega government in Nicaragua. El Salvador has remained quiet, with only an occasional attack by the FMLN. Only Panama gets much news coverage, and then only an occasional line--for example, when the new puppet president was installed by General Noriega. In fact, one would think that this area of the world had slipped back to the nice peaceful days of the past, when the region meant only a source for coffee, bananas, or pineapples. What happened to the Crisis in Central America? Is it still there? If so, what does it mean to the average citizen in the United States?

After living and studying in the region for six months in 1989, I have four principal observations to share that address those questions. First, the problems of the region are complex and hence require complex solutions. Second, although the countries of that region are similar, they each have a unique character, making general regional solutions difficult, if not impossible, to impose. Third, and most important to me,is the fact that much of the economic and entrepreneurial potential of the area is underutilized and suppressed. Finally, I believe that the United States, like it or not, will have to be a party to solving the problems that led to the crisis.

Let's look at the first issue: the complexity of the problem. For example, our sole interest in Central America during the last 8 years has been our preoccupation with the Nicaraguan revolution and the Sandinista regime. Our solution was to wage a surrogate war by forming and supporting the counter revolutionaries (CONTRAS), and to imposing an economic boycott on the country. Neither action seems to have been very effective. The so called "communist threat" is more of a symptom than it is a cause. Eliminating that threat will not remove the cause of the crisis--poverty and oppression for most of the region's population.

Social-Political Structure

Much of the area still maintains the colonial social-political structure of a few large land owners, and now, several industrialist families that control most of the wealth. In the past, the U.S. has been either passive to this situation or in support of the status quo because of U.S. investments in the region. But again, a change in the social-political system alone will not solve the crisis. Economic growth that is shared by all of the people is needed. By any measure, the nations of Central America are in the developing world, and they suffer the problems of most developing countries. They are in the midst of change, from rural agricultural to urban industrial-based economies. They have burgeoning populations with high rates of growth. They struggle daily with the seemingly insurmountable problems of literacy, health, the environment, and hunger. The complexity of development is as real in Central America as anywhere else in the third world. No simple solution, either military, political or financial, will solve the crisis.

Secondly, we in the North have a tendency to consider the region one big homogeneous area where Spanish language and culture tie the nations together. This assumption leads us to apply region-wide policies, which seldom work. It is important for us to recognize that the 7 nations in the region probably have more differences than similarities. The spanish spoken in Costa Rica differs from that of Nicaragua. Many of the countries have a large indigenous population with their own languages. Because the geography of the region kept the Spanish from consolidating the various colonies, they developed as autonomous independent nations. In many cases, they continue to harbor animosities towards one another.

As Table 1 indicates, this region of 27 million people includes a wide diversity of demographic characteristics, from little Belize with only 154,000 population, to Guatemala, with over eight and a half million people. Although all of the nations are poor, with an average GDP/Capita of $1,085, even here there is diversity. Honduras and Nicaragua have only $560 and $600, respectively, while Panama leads the region with a high of $2,020 GDP per capita. Literacy rates range from 47 percent in Guatemala to 93 percent in Costa Rica. Political systems differ drastically, from a military dictatorship in Panama to a democratic government in

TABLE 1
Central American Demographics

Nation	Population	GDP/Capita	Literacy	Male Life Expectancy
Belize	154,000	$1,055	70%	60.0
Costa Rica	2,812,000	1,420	93%	67.5
El Salvador	5,260,000	880	63%	61.7
Guatemala	8,622,000	1,336	47%	57.3
Honduras	4,815,000	560	60%	58.2
Nicaragua	3,319,000	600	88%	58.7
Panama	2,275,000	2,020	90%	69.2

Costa Rica. Undoubtedly, to apply global solutions to a region with such diverse cultural, political and economic identities will not work.

The Entrepreneurial Force

Of all of the impressions that I brought back from Central America, the most important one was that there is a tremendous amount of economic potential that is not being recognized and realized. I quickly came to the conclusion that Central Americans are one of the most enterprising groups of peoples on earth. Many of the population hold two or even three jobs. This usually includes a regular eight- hour job and then either another night or part-time job. Some run their own businesses. Granted, they need this work for their survival, but the energy level is enormous. For me, it dispelled the gringo myth of the lazy Latin.

There is a large and energetic entrepreneurial force at work in the area. But unlike the reborn entrepreneurs in the U.S., the business people of Central America are forced to operate outside of the formal sector. On every street you can find dozens of small shopkeepers and vendors. Inventories are limited, but somehow miraculously appear. Prices are competitive and service usually efficient. According to the studies of Hernando de Soto at the Institute for Liberty and Democracy in Lima, the informal sector of Latin American countries represents up to 60 percent of their economies. This was very evident in Central America where unlicensed individuals operated in every sector of the economy from transportation to food services. The problem is that these people would be even more productive and effective if they were allowed to grow by the established government--industry coalition. When an informal entrepreneur gets too large, he is put out of business by the government. Only by remaining small can entrepreneurs exist and contribute to the economy. I can't help but wonder what would happen, in terms of economic development, if the barriers and restraints on these people were removed.

The Free Enterprise Movement

Another movement that is beginning to impact the economic growth of the region is the development of grass roots, bottom-up decision making. Costa Rica has always been a great example of the effectiveness of the cooperative agricultural movement. Now, in that country, this philosophy has spread to other sectors, like transport. In those areas of Central America where decentralized decisions are allowed to be made, the people are determining for the first time what best fits their needs for development and economic success. It is the Japanese style of participatory management that we now herald in the West. It should not be a surprise that in Central America those closest to the problem are coming up with the best solution.

We can hope that those in the U.S. who support the free enterprise system will support this blossoming free enterprise movement in Central America. Big is not always best, in government or business. While there is a place for the large national and multi-national enterprise in the region, there should also be a place for the small individual or cooperative business as well.

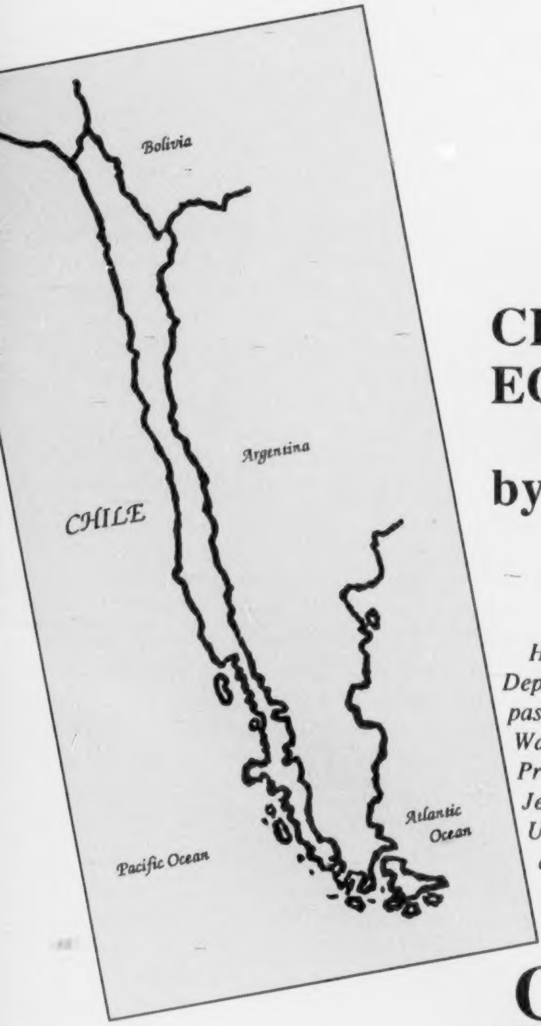
Our Shrinking World

Finally, I came away from this experience convinced that Central America is an area that we can no longer afford to ignore. We are tied very closely both economically and environmentally to the region. One of my most vivid memories brought home this interconnectedness between us. It was a trip to the frontier between Nicaragua and Costa Rica, where I spent some time with families who are settling that region. Many of these subsistence farmers are refugees from Nicaragua hoping to establish a home for their families safe from the war that had been going on across the border. From the time you enter the region until you leave, your senses are filled with the sounds of falling trees and the smell of burning forests. Reading about the destruction of the rain forest is one thing, but to experience it firsthand is another. To meet the people whose only hope for food and shelter is in the clearing of this land raises a real dilemma in values. Their alternative is to move to the already overcrowded slums of the city, and yet, I knew that the burning rain forest around me was also changing my environment back home in Tennessee.

There were many other reminders of how our own country is being changed by the events in this region. The drug problem is continually in the news, both in terms of its effect on their own people and the problems that result from being en route from producer to consumer. In the cities of Costa Rica there are refugees from Nicaragua, El Salvador, and now Panama, whose main hope for a better life is to come the United States, either legally or illegally. In Panama I watched the commerce of the world pass through the Canal, much of it bound for the States, while I in turn was watched by an armed member of Noriega's military.

Our history is riddled with a fluctuating pattern of interest and noninterest in these countries of Central America. At times we have forgotten they exist, and at other times we have sent in the Marines. The people of the area that I talked to admire and respect us as individuals, but they have little good to say about us as a country. This sentiment was consistent from the uneducated peasant farmer to the business executive or university professor. Central Americans feel ignored and forgotten except when they get in our way. Most of the people I met don't want a handout, but they would like to be treated with some respect. When they form a cooperative, they would prefer to be called entrepreneurs instead of communists.

Is there still a crisis in Central America? Yes! It didn't go away with the Reagan administration. What does it mean to the average U.S. citizen? Americans must realize that this is the third world on our door step. Their environmental problems are now also ours, their population problems are ours, their drug problems are ours. Are there easy solutions to the problems? No, but ignoring them is not a solution. The region is too crucial strategically to our national interest politically, militarily and economically. But more importantly, we should realize that Central Americans are human beings living in less than human conditions. ■



CHILE: SOUTH AMERICA'S ECONOMIC MIRACLE

by Harold A. Black

Harold Black, head of the Finance Department at CBA, visited Chile this past summer along with CBA Dean C. Warren Neel and Graduate Business Programs Associate Dean Roger L. Jenkins to advise officials at the University of Santiago on the development of their MBA program.

Chile is a long, slender South American country almost 3,000 miles long. To its north is a desert that is the driest spot on the earth. Its south lies in the Antarctic. Between these two extremes are forests, rich agriculture, and abundant minerals. It is a country that has received its share of bad press due to a once-repressive military dictatorship and the well-publicized cyanide grape scare. So when I had the opportunity to visit the Business School at the University of Santiago with Dean C. Warren Neel and Dr. Roger L. Jenkins, I was anxious to see South America's economic miracle first hand.

Upon arrival in Santiago we were met by Emanuel Friedman, Dean of the Business School, and a familiar face from The University of Tennessee, Knoxville, Dr. George Philippatos. Dean Friedman and a member of the faculty, Ramon Ramos, who studied accounting at UT, proved to be cordial and generous with their time. We were provided excellent accommodations, a driver, and samples of Santiago's finest cuisine each night.

We had a full week, talking with faculty, students, government officials and meeting with the University rector, Raoul Smith, who has a doctorate in engineering from UT. I was struck by the openness and candor of the conversations and particularly by the fact that a country ruled by a military dictatorship permits what seemed like a continuous demonstration by students. Their arena was a debating pit in the middle of campus. I found it interesting that traffic policemen carried automatic weapons, and yet campus police were unarmed.

Toward a Market-Oriented Economy

When we were there, the demonstrations were about the coming plebiscite -- a rarity for a dictatorship. Last October, voting yes or no for Augusto Pinochet continuing as president, 53 percent voted no, and as a result, free elections are scheduled in December. All parties, even the Socialists, are advocating continuing the market-oriented economy.

Although the Pinochet government came to power in a brutal overthrow of a democratically elected Marxist government, it has proven to be an odd kind of dictatorship. In its promotion of a capitalistic, market economy, living standards have risen, infant mortality has declined, and illiteracy has declined.

Chile is an anomaly. While most of South America has stagnated and confronts runaway inflation, Chile's inflation rate has remained below 13 percent. This contrasts sharply to Argentina's reported 1 *million* percent last month. Chile exports 32 percent of its gross domestic product. The largest single export is copper; however, its share of total exports is declining from the 85 percent of 15 years ago to less than 50 percent today. Growing exports are fruit, forestry and fish. Per capita income has increased in Chile since 1985, while the rest of Latin America has been declining or stagnant.

Privatization

Perhaps the most significant lesson I learned from my visit to the central bank was not about the Chilean monetary process, but rather about its privatization of the social security system. It is an appealing alternative to what is in place in this country. In the United States we have a system that lurches from bankruptcy to bankruptcy, providing a rate of return for which all of us would fire our investment bankers. But in 1980, Chile allowed its workers to leave the social security system and join a fully private system. Individual accounts are managed by any one of 12 investment companies specifically chartered and regulated by the government.

Under the old system, workers' payroll taxes were 36 percent; now they are 20 percent. The investment goal is to give the worker 70 percent of the final five years of pay compared with 45 percent here. At retirement, the worker can choose either to purchase a government-guaranteed annuity or to maintain the investment account and make periodic withdrawals. Ninety percent of Chileans workers have opted for this plan, and the resulting pool of investment has generated the capital for South America's strongest economy.

The officials of the University of Santiago wanted input from The University of Tennessee into the development of their MBA program and advice on executive education. We have instituted a summer internship, with our MBA students living in Santiago; we have created space in our quality control program for their professors; and we continue ongoing discussions about a faculty exchange program.

While the political atmosphere in Santiago is still unsettled, the University of Santiago believes that this will have little effect on the relationship with the UT College of Business. Although the Chileans are interested in letting us help them in the development of their programs in this initial stage of our exchange, such mutual experiences are invariably beneficial to all parties. ■

MBA INTERNSHIPS IN CHILE

CBA Dean C. Warren Neel and Associate Dean for Graduate Business Programs Roger L. Jenkins, in conjunction with Dean Emanuel Friedman of the University of Santiago, Chile, have established a system under which UT graduate students can fulfill the Master of Business Administration summer internship requirement by working with multinational companies in Santiago.

Five MBA students from UT initiated this internship arrangement in the summer of 1989. They spent nearly three months in Chile studying Spanish, working with multinational companies such as IBM, NCR and Goodyear, and experiencing Chilean culture and lifestyles as guests of the University of Santiago and its Facultad de Administracion y Economia.

The College expects at least six more first- year MBA students to work in Santiago in the summer of 1990.

Greg Goswitz, author of the following article, is a second-year MBA student who interned in Chile this past summer.

Chile: An M.B.A.'s Perspective
by Greg Goswitz

Chile is a third-world country turning first-rate. Unfortunately, problems like drug-running in Colombia and hyper-inflation in Argentina give Americans a distorted view of South America. But Chile is different. From its spotless and efficient underground Metro, to the innovative and productive economic system, Chile presents a role model.

This is not to say that everyone in Chile is well off. We saw some "houses" in the Chilean countryside that would make the worst of dwellings in the U.S. seem inviting. Also, many beggars with babies in their arms walked the streets asking for coins. But on average, the people in Chile are better off now than they have ever been.

The Chilean economy grew 6.8 percent in real terms in 1988, capping five years of positive real growth numbers, the last three years of which showed rates in excess of 5 percent. Even more important for a highly indebted developing country, Chile is running a substantial trade surplus. Exports now represent nearly a third of gross national product. In 1988, U.S. imports from Chile were greater than U.S. exports to Chile by $300 million.

One of the most interesting policies the Chilean government has initiated is its debt swap program. Chilean and foreign investors can buy Chile's foreign bank debt, which is offered in U.S. secondary markets at a discounted rate of about 60 cents on the dollar. These can then be sold, or swapped, at a mark-up from the discount, but not full-face value for pesos. Chilean banks and companies with dollar debts can then buy them back, with a good profit on the transaction. The Central Bank (similar to the U.S. Federal Reserve) restricts the amount through quotas and fees in order to limit the inflationary impact. Thus, foreign banks and companies can use the pesos for investment projects that have been approved by the Central Bank. The net result of the program is that since 1985 Chile has repaid some $6 billion of its $15 billion in foreign bank debt, while it has encouraged substantial new foreign investment.

There are many subsidiaries of U.S. companies located in Santiago. Each M.B.A. student had the opportunity to work for one of these subsidiaries including Goodyear, IBM, NCR, and Deloitte Haskins & Sells. Although their business structure (i.e., accounting procedure) is quite similar to that of companies located in the U.S., the Chilean government, like other foreign countries dealing in multinational finance, taxes heavily (approximately 35 percent) the amount of earnings that leave the country for the business's base country. This is to ensure that the profits that are made in Chile will be retained in Chile.

The richest business people in Chile are the entrepreneurs. The government encourages and helps finance any new business that will raise revenue and employ more people. It is well-rewarded sector.

Chile has not always been peaceful. It has had its turbulence, similar to any other South American country. During the early 1970's, the country experienced economic turmoil mainly because of hyper-inflation and the nationalism of many business sectors. On September 11, 1973, a military coup led by the armed forces overthrew then-President Salvador Allende. But over the years Army General Augusto Pinochet, who became the new Chilean President and governed largely by military dictatorship, began to relinquish power to the people through a series of plebiscites.

The front-runners in the upcoming December 14 election are Hernan Buchi and Patricio Alwyn. Buchi has an M.B.A. from Columbia University and was the Minister of Finance under Pinochet. He is widely credited with the economic strength that Chile presently experiences. Alwyn is a lawyer and an experienced politician in the Congress. Maintaining the economy is a major concern for both candidates.

Everyday life in Chile was vastly different from life at home for the MBA students. In Chile, the people drink only coffee and eat a roll for breakfast. (We have concluded that this is the reason for the efficiency of the business workers in the morning - the people are wired from the coffee on empty stomachs.) At lunch, Chileans eat their largest meal of the day. The most difficult adjustment for us was dinner, which was always served after 9 p.m. -- and usually as late as 11 p.m. The late social hours were a problem when we were invited to parties, which would begin at 11:30 p.m. and last until 5 in the morning.

Besides being exceedingly friendly, the Chileans are extremely proud. Soccer is the most popular sport in Chile, and Chileans' patriotism shows when their national soccer team plays a visiting team. But, unlike the violent European fans, the Chileans prefer to demonstrate their aggressions by throwing fruit at the opposing team and referees.

The exchange rate for Americans is very favorable, so visitors to Chile can live royally. The seafood is excellent and always fresh, since Chile's coast is located entirely on the Pacific Ocean. The public transportation system can take you anywhere in Santiago at a minimal cost. But above all, the trip will also give the visitor a firsthand look at a third-world country making vast strides toward political and economic success.■

Soviet Unio..
Mongolia
CHINA
Taiwan
Vietnam

CHINA: SWIMMING AGAINST THE RISING TIDE

by Paul Davidson

At the invitation of the Chinese Public Finance Association and the government of the People's Republic of China, Paul Davidson, J.F. Holly Chair of Excellence in Political Economy, went to China last spring to present a paper at an international conference on macro control and macro policy.

On May 20, 1989, the day that martial law was declared in Beijing, I presented a paper at the 1989 Xiamen International Conference on Macro Control and Macro Policy at Xiamen University, Xiamen, Fujian, the People's Republic of China. From there I was to go on to present seminars to MBA and economics students at universities in Shanghai, and Beijing. But developing political events were to change all that.

Xiamen, in Southeast China, is that part of mainland China closest to Taiwan. Previously called Amoy, Xiamen is only two and one-half kilometers from Nationalist China's island of Quemoy in the Straits of Taiwan.

Today Xiamen is one of the areas designed as a *Special Economic Zone*. Within these zones, the Communist Chinese government permits capitalist-type firms to operate (these can be either joint ventures with foreigners, or China-owned firms which have significant autonomous power for decision-making) and to allow individuals to buy and sell land. In Xiamen, for example, Eastman Kodak has a joint venture with the Chinese and has built a film producing and processing plant which is expected to provide for a significant proportion of China's photographic needs--and hence help China conserve its hard currency export earnings.

The Xiamen International Conference was attended by a half dozen foreign economists from the U.S. and Canada, and about 35 economists from various universities and government agencies in China.

Economic Reforms

The discussion that followed the papers related to the obvious economic discontent sweeping through China. Although in the past year real GNP had increased by 11 percent under the "economic reforms," China was experiencing a 27 percent annual rate of inflation, a symptom of the recent rather large, arbitrary and inequitable redistribution of income resulting from economic reforms, compared to the rigid and clear occupational income structure which operated under the Communist state-run system. Simultaneously, there has been a large rise in unemployment as overmanning was reduced following the introduction of less controlled markets and the resulting freedom of decentralized managerial decision-making.

The introduction of these economic reforms in Special Economic Zones (only in the certain geographic areas) involved more freedom for entrepreneurial managers in terms of hiring, production, and pricing decisions; permitting joint entrepreneurial ventures with foreign capitalists; and changing the agricultural sector from large state-run enterprises to small local cooperatives which are able to sell their produce at "free" market prices.

Initiating these limited aspects of market-oriented entrepreneurship in a system that is still primarily one of "state socialism" in many sectors seems to be the basis of much of the current discontent. Professional economists from all over China who were gathered at this conference continually raised the issue of the need to do something (often using the term "punish") to those who were getting "rich" faster than the rest of society from these market reforms--e.g., the farmers, the export-importers, and the land speculators operating in the Special Economic Zones who were able to buy cheap and sell dear. Others named were workers (waitresses, taxi drivers) in the joint venture hotels and other enterprises whose pay was geared to revenues rather than related to the strict state-controlled wage matrix.

Many of the economists at the Xiamen Conference expressed a need to adopt "monetarist" policies to curb inflation and slow economic prosperity, even if it meant creating more unemployment and hard times for the average person.

Discontent was also being fueled by the simultaneous saturation of Chinese television with commercials for consumer durables such as refrigerators, TVs, and VCRs. This continual TV exposure raises the aspirations of all workers; but such products are only within the reach of those who are either at the top of the state wage matrix or those working in sectors where free markets set prices and wage compensation at large multiples of earnings of state enterprises.

A Confusion of Goals

Many university students studying for the M.B.A. degree attended the Xiamen Conference--primarily in the role of interpreters--even though students were theoretically on strike. In private conversations, these students indicated that the charges of "corruption on the part of government officials" involved the ability of bureaucrats and/or their relatives (including university stu-

dents) to purchase consumer durables at the world (import) prices and then resell them at the higher Chinese "free" market price. The students--despite their MBA business orientation--still wanted a communist, rather than a capitalist system. This seemed to be the case even for the students in Tienamen Square, who continually played the Communist Anthem on their loudspeakers. Student dissatisfaction at Xiamen stemmed from the fact that the gains from the "economic reforms" were not spread widely enough; they wanted every citizen to receive an almost equal piece of the action.

Problems of Regional Inequality

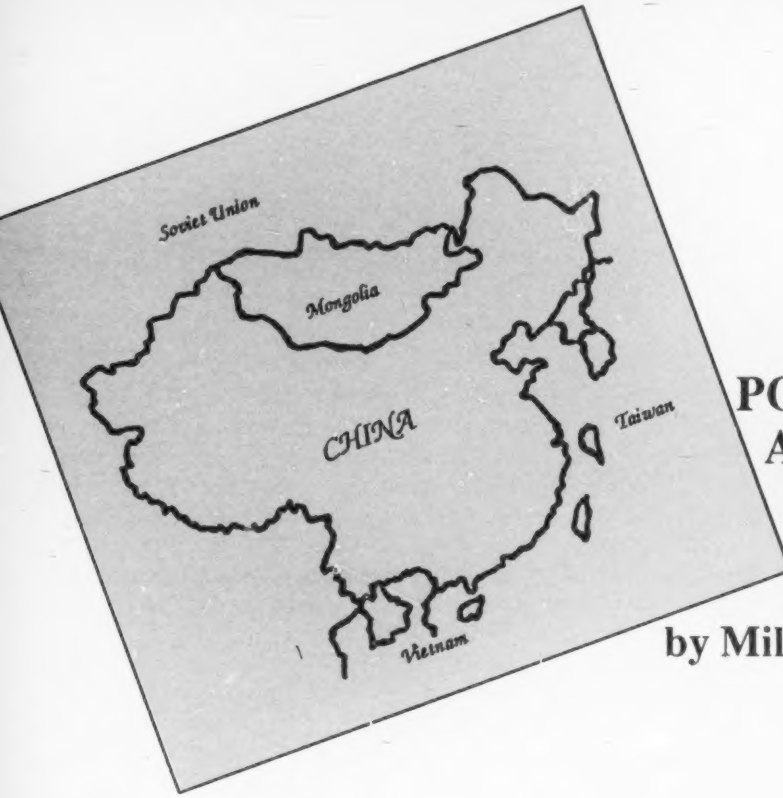
The freeing up of the more "equitable" socialist income structure had caused great regional inequalities between the Special Economic Zones and the rest of China, as well as occupational and sectoral inequalities within the Special Economic Zone. For example, the regional gross product per capita of Shanghai was five times the average GNP per capita of the entire nation.

When President Kennedy recommended economic reforms in the U.S. economy in the 1960s, he justified his program with the homily that the resulting "rising tide lifts all ships." In China, although the economic "rising tide" associated with economic reform has improved the lot of even the lowliest worker, many people feel less content than under the previous system. Despite the fact that absolute real income gains have created virtually no real income losers in China, the increasing income inequalities seem to make the majority of the population more uneasy than they had been under the slower growth and more equal income distribution of earlier years.

Capitalist vs. State Systems

The Chinese, having reintroduced on a limited scale the market system of the capitalist world, have also imported the resulting arbitrary and inequitable market distribution of income. It is possible that similar maladies will be developing in other communist Eastern Europe nations as glasnost and peristroika introduce both the advantages and disadvantages of the capitalist system into a state socialist system. The question is whether the practical Chinese will restore economic and political stability via a return to a repressive State Socialist regime, which loses the "efficiency" and pluralistic advantages of self-interest capitalism, or whether they can devise a civilized society which melds pluralism and market structure with some societal control over the inequality of the distribution of income.

Finally, I should report that after martial law was declared in Beijing, but before the bloodshed, the organizers of our trip (mainly professors of economics) decided to cancel our seminars at the universities in Shanghai and Beijing because of the student strike. Moreover, they felt that the situation in Beijing was likely to get much worse before things settled down, and that I would be wise to leave China while it was still easy to do so. When I asked the students who were acting as my interpreters whether they thought things would get worse, they all said no--there would be a peaceful and successful resolution (from the students' standpoint) to the problem. When I finally decided to leave early, it took two days to get a reservation on a flight out of China for Hong Kong. A few days later, the tanks rolled into Tianemen Square. ■



POPULATION, POVERTY AND PROSPERITY: CHINA'S ENVIRONMENTAL WOES

by Milton Russell

Milton Russell is Professor of Economics and Senior Fellow at the Energy, Environment and Resources Center at The University of Tennessee, Knoxville. He also holds a joint appointment with Oak Ridge National Laboratory.

He first visited China in 1984 when, as Assistant Administrator of the USEPA, he was part of a delegation which negotiated an environmental protection protocol between China and the U.S. He has since been to China on several occasions and spent two months there in the summer of 1989 under the auspices of the United Nations Development Program, the Rockefeller Foundation and the National Environmental Protection Agency (NEPA).

Four Chinese graduate students selected by NEPA are now at UT studying environmental management, and dissertation research in China in 1989-1990 is planned by an Economics Ph.D. candidate. A number of Chinese delegations have visited UT, TVA and ORNL over the past two years to study environmental protection and to consult with local experts. Together, these three institutions offer a range of expertise that makes East Tennessee a major resource to help solve China's problems. Several UT scholars have traveled in the other direction and brought the Chinese experience back to the campus to enrich research and teaching here.

Environmental conditions in China are dramatically worse than those in the United States, but the Chinese are acting with commendable vigor in attempting to contain and ultimately reverse the damage.

The problems form a familiar litany: the air is dangerously dirty with sulfur oxides, particulates (dust and aerosols), toxic gases and heavy metals; the surface water is short on oxygen and long on toxics, pesticides and harmful bacteria; ground water monitors indicate rising levels of nitrates and dangerous hydrocarbons and other chemicals; the soils show growing contamination with heavy metals and pesticides; each year tens of thousands are made ill or killed by acute pesticide poisoning in the food supply, and millions are at risk from chronic exposure; no water is safe to drink without point-of-consumption treatment; and there is no place to put growing amounts of garbage and trash, much less hazardous and radioactive waste. These pollution hazards are joined by other more serious long-term problems such as deforestation, desertification, soil erosion, destruction of wildlife habitat and wetlands, and depletion of ground water. Altogether, it is not a pretty picture.

The Three P's

The root causes of China's environmental predicament are the "three P's:" population, poverty and (paradoxically) prosperity. While the government has been trying vigorously to limit births for more than a decade, the demographic bulge fostered by Mao in the 1950s and 1960s guarantees that population growth will not halt until well into the 21st century, even on the most optimistic of assumptions as to the success of the one-child-per-family policy. That policy itself is cracking around the edges, especially in rural areas where reforms have brought prosperity that erodes the economic incentives imposed to limit family size. Providing fuel, food and living space for 1.1 billion people places incredible pressure on China's natural resources and on its ability to dispose of wastes safely. That pressure will rise as population creeps upward toward 1.3 billion over the next decades, almost doubling the 750 million that the Chinese calculate would be the population optimal level, given their resource base.

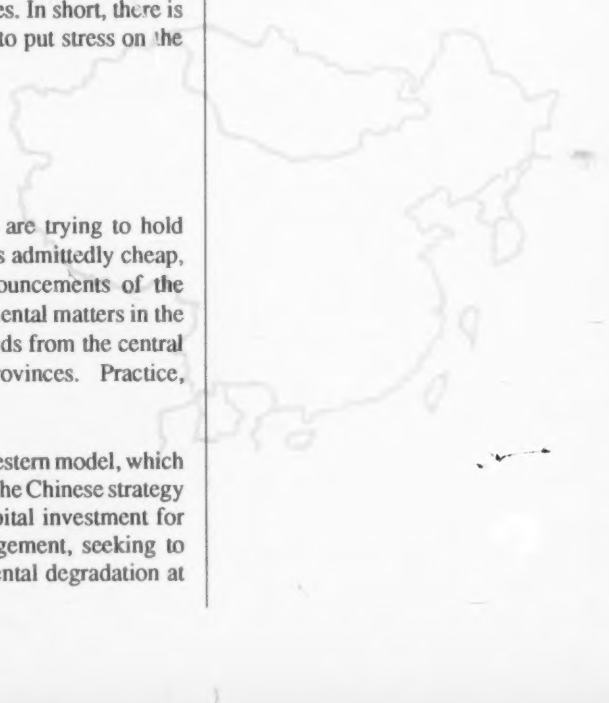
Developed and rich countries can hold environmental degradation at bay by substituting capital and current income for pollution. Sulfur oxide in the air can be reduced by flue gas desulphurization (FGD) equipment; sewage treatment facilities can be upgraded; soil erosion can be limited when the government is able to pay farmers to take land out of production. But poor and food-short countries such as China realistically have no such options. For example, FGD equipment may add a fourth to the capital cost of an electric power plant and absorb 4 percent of its power. Up to 20 percent of China's industry is presently down for lack of electricity, and it is simply unthinkable that the country would devote scarce capital to controls rather than to building the power plants that it needs to raise living standards.

Paradoxically, China's growing prosperity is making these problems worse. While the per capita income is still only around $300/year, total income has been growing at near double-digit rates since the reforms began in the late 1970s. Capital has been pouring into heavy industry; chemical fertilizers and pesticides have boosted agriculture production; and small factories have sprouted in villages and towns through most of the country, absorbing surplus agricultural labor and local raw materials. Draconian policies have dampened the flight to the city that characterizes most developing countries, but many cities have still seen a near doubling of population in the last decade.

The environmental consequences were predictable. Added industrial facilities, even if well controlled, would have meant deterioration of the air and water. And many were not well controlled. Further, added prosperity itself has changed behavior in ways deleterious to the environment. For example, richer farmers with access to chemicals have reduced their use of human and animal waste--adding a chemical burden to the environment, on the one hand, and a sewage burden on the other. Moreover, a richer population now enjoys more appliances that use electricity and has more to throw away; litter is now a problem that was nonexistent a decade ago, and the solid waste disposal problem increases even as places to put it disappear under housing and reclaimed land used to grow food.

Transportation forms another portion of this picture. China is creeping toward a national market. Until the last decade or so, subregions and even cities were mostly markets to themselves. For example, the area around each city was formerly expected to provide all its food with the exception of grain. Fuel was (and still is) mostly a local responsibility. Industry was vertically integrated. For that matter, factories were expected to provide housing, schools and services on-site, limiting the need to move people. Transportation was limited to goods where the advantages of specialization were overwhelming, and people mostly stayed put.

This situation is changing, and as it does, the demands on transportation have bounded ahead of total output and certainly ahead of capacity. The most obvious environmental consequence is pollution from the growing number of trucks and busses crowding inadequate roads. (Passenger car numbers, while still trivial, are also growing.) The burden of moving people is compounded by China's primitive communication system; simple tasks performed by telephone or computer link-ups in this country must be performed face-to-face in Chinese cities. In short, there is nothing nearly so powerful as a poor country growing richer to put stress on the environment!



Redressing the Balance

Faced with this set of conditions, Chinese authorities are trying to hold environmental degradation in check. While rhetoric is admittedly cheap, environmental consciousness is reflected in frequent pronouncements of the highest government officials, in the attention paid to environmental matters in the press and on TV, and in an administrative structure that extends from the central government to small towns and rural counties in distant provinces. Practice, obviously, lags far behind.

The backbone of the Chinese approach is rejection of the Western model, which was to get rich first and then pay attention to the environment. The Chinese strategy is grounded in the reality that poverty precludes massive capital investment for end-of-pipe controls. Consequently, their focus is on management, seeking to exploit interventions that limit health damage and environmental degradation at the least possible cost.

Implementing Strategy

The first stage of implementing this strategy was to create an administrative structure of advocates for the environment from the national to the local level. While the quality and training of local and county officials is sometimes poor, a presence has been established. On a parallel track, each ministry (Energy, Heavy Industry, Chemicals, etc.) has an environmental protection structure in place as well, extending to shop floor committees in many cases. The first task of these officials has been monitoring local conditions; it is a common observation that China collects more data about its pollution than any other country in the world.

The second stage was to create a system of environmental law so that there would be a basis against which performance could be measured and a framework for implementing and enforcing controls. Underway for a decade (the first environmental law was passed in 1979) this system is still woefully incomplete in the areas of implementation and enforcement. This is a reflection of the pervasive lack of a "rule of law" which characterizes much of Chinese society.

The third stage was to decide what, in practice, was to be done. Pragmatism dictated that existing pollution sources could neither be controlled nor shut down unless egregious conditions led to acute hazards. Even then, possible remedies were limited. In one instance, for example, the machinery in two facilities was switched so that dangerous water from one was discharged in a part of a bay away from shellfish beds and recreational beaches.

As to new facilities, the policy calls for mitigation of potential hazards, with those hazards identified through environmental impact assessments. The focus is on lessening risk at the lowest possible cost. Often, that is accomplished by controlling location when controlling emissions is too expensive. As a realistic second-best, they seek to put the most serious pollutants where people are few, weakening the chain between emissions and damage to public health. For example, emitters of harmful air pollution are placed downwind of population centers. Or again, there is no realistic prospect of controlling sulfur emissions, but current policy calls for installation of very tall stacks to dilute the emissions before they reach the ground. If all else fails, environmental authorities seek to have plants designed so that control retrofits can be added later when the cash flow of enterprises allows

Consistent with this pragmatic risk-reducing policy, special attention is paid to persistent and bioaccumulating chemicals, and relatively little effort to pathogens, except when discharged into fisheries or water-based recreation areas. Heavy metals and chlorinated hydrocarbons are particular targets for control because they get into the food chain and are not normally eliminated by water treatment. Substantial progress has been made, but control pressure placed on big urban enterprises often leads to migration of polluting activities to towns and the countryside, where emissions remain unchecked. Some of the most dangerous pesticides have been banned or are being phased out; efforts to educate farmers in wiser use are under way.

As to pathogens, domestic sewage is mostly discharged raw into rivers because China is not in an economic position to undertake broad-scale treatment. Heavy chlorination and the common practice of boiling all drinking water prevents significant infectious disease outbreaks through that route. The success of this policy is manifest. China has virtually eliminated the common water-borne diseases such as cholera and typhoid which still take a massive toll in many developing countries. Indeed, from a public health standpoint, the Chinese story is bright when contrasted with the record in other developing nations. Life expectancy has risen dramatically, and morbidity rates have been reduced.

Ecological Protection

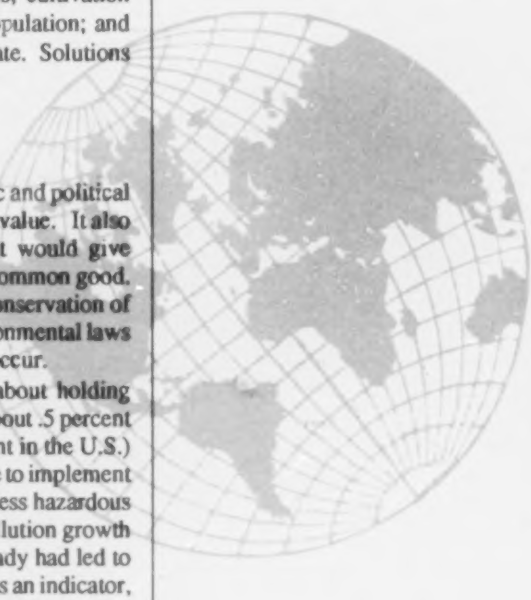
In the area of ecological protection policies, the problems are perhaps greatest and progress the most difficult. The Chinese have been moderately successful in establishing policies to protect some endangered species. For example, farmers are paid for damage done by tigers and elephants to discourage their killing these animals when they threaten their livelihood; peasants are rewarded munificently for actions that protect Giant Pandas. But forest cover continues to decline under pressure for cooking fuel despite massive tree planting campaigns; cultivation creeps up erosion-prone hillsides to supply food for a growing population; and overgrazing is turning western grasslands to desert at an alarming rate. Solutions are easy to articulate but depressingly difficult to implement.

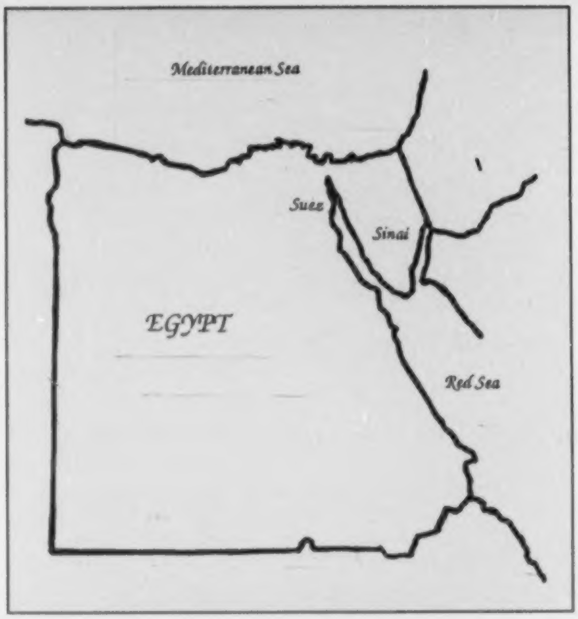
Basic Contradictions

In all of these activities the Chinese are hampered by an economic and political system that does not price resources and products at their true social value. It also does not provide the long-term assurance of property rights that would give ordinary citizens a financial stake in behavior that would serve the common good. The economic reforms underway are changing incentives toward conservation of natural resources, but until they are married with a full range of environmental laws backed up with adequate enforcement, continued degradation will occur.

In sum, the Chinese have demonstrated that they are serious about holding environmental degradation in check. At present they are spending about .5 percent of their GNP directly on pollution control (as against about 2 percent in the U.S.) and expect that rate to double in the next few years. The infrastructure to implement pro-environment policies is largely in place. New installations are less hazardous than those built a decade ago; some cities are noticeably cleaner; pollution growth has lagged increases in output. Public opinion is aroused, and already had led to plant closures and to community rejection of polluting industries. (As an indicator, the thrice-weekly *China Environmental News* has 450,000 paid subscribers.) But the problems are enormous and the resources to confront them are few.

Recognizing that the Western model of throwing money and technology at the problem is futile, the Chinese environmental leadership has emphasized managerial interventions that would limit degradation with minimal reduction in economic growth. The key mechanism has been to create economic and political incentives for environmentally responsible behavior. They have already achieved modest success and have built the foundation for real progress in the future. ■





FACING THE DEFICIT PROBLEM IN EGYPT

by William F. Fox

Bill Fox, Professor of Economics and Associate Director, Center for Business and Economic Research, has been an economic advisor to the Egyptian government for several years as a consultant for the Agency for International Development. He has also been a finance consultant to the governments of the Philippines, Hungary and Haiti.

In both Egypt and the U.S., the large government budget deficit has been a subject of much ~~discussion~~ during the 1980s. In Egypt, however, the pressure for deficit reductions has arisen less often from internal sources than from the international donor community, such as the International Monetary Fund, World Bank, and U.S. Agency for International Development. The importance of deficits to the Egyptian economy has been stressed because, though the dollar value of deficits is greater in the U.S., Egyptian deficits are much greater as a share of the economy. At its peak in the 4th quarter of 1982, the U.S. deficit reached 6.4 percent of gross national product, and is currently about 2.9 percent of GNP. The IMF estimates that the Egyptian government's deficit has ranged between 16 and 20 percent of gross domestic product (GDP).

Three major concerns have been discussed regarding the Egyptian deficit, and these concerns parallel some which have been espoused in the U.S. The first is that large deficits cause the aggregate demand for all goods and services to exceed the supply, and result in inflationary pressures. Price controls on many commodities and services make inflation difficult to measure, but 20 percent inflation rates have been estimated for Egypt in the 1980s. Second, private investment may be crowded out as the public sector seeks to borrow a large share of the available loanable funds. The danger here is that reductions in private investment could lower future Egyptian productivity. Finally, the balance of payments deficit may be worsened as goods must be imported to meet the demands of Egyptian government, businesses, and consumers.

Expenditure Cuts or Tax Increases?

Parallels between the two countries also can be found in the discussions of how to reduce the deficit. Controversy has raged in the U.S. over whether the government deficit should be reduced through expenditure cuts or tax increases. Proponents can be found for each extreme, but most economists support some combination of these two approaches. Many have argued that both tools also will be necessary to narrow the Egyptian deficit. However, the potential for deficit reduction without tax increases may be much greater in Egypt than in the U.S. The remainder of this article discusses some potential options other than tax hikes.

Deficit Reduction without Taxes

A substantial share of the Egyptian deficit can be attributed to government policies which have worked counter to normal economic market forces in efforts to achieve certain distributional goals. Movement to a more market-based economy would make major improvements in the deficit. For example, much of the nation's manufacturing capacity was nationalized during the Nasser era. Prices for "essential" products produced by these public sector companies are set administratively by a committee including the Prime Minister and several other ministers, rather than being set consistent with cost increases and market forces. Prices frequently have been held low to keep these essential commodities affordable for low-income residents.

Numerous other constraints also are imposed on the way public sector companies operate. For example, prices often are set below economic production costs for transactions between public sector companies. Electric prices are one of the most flagrant examples. Electricity is sold to the aluminum factory for about 5 percent of true power production costs. Estimates are that the aluminium produced in the plant has a lower value than the implicit subsidy to the electricity used in its production. But the subsidy makes the company appear more viable financially, and the company continues to operate at a large opportunity cost to the country.

Further, production quotas may be set and product mixes established. Little control over hiring decisions and incentives may be allowed. At the same time these companies are often in competition with private sector companies. Misr Dairy is a public sector company producing ice cream, cheese, milk and yogurt. Beset with limitations (though with control over its prices), it lost 15 million Egyptian pounds in 1988/89 alone and has been insolvent for seven years.

These controls on pricing and other business policies have important implications for the government budget. The national budget is responsible for funding much public sector company investment and losses by public sector firms (though this is initially done off budget). There also are direct subsidies to some firms.

Operating public sector companies as efficient businesses, which are required to earn a reasonable rate of return, would provide much progress in overcoming budget deficits. An average price increase for public sector company products of 20 to 25 percent may be necessary if they are to earn a 10 percent rate of return, though it should be noted that 10 percent would fail to equal the rate of inflation.[1] This rate of return would reduce the deficit by about 2 percent of gross domestic product. Further, where prices need to be increased to a market level, they would serve the additional benefit of causing people to act efficiently when they make consumption decisions. An expectation is that people would purchase less of some products. Concerns that the lowest income residents would be unable to purchase certain products could be overcome by developing programs which target free or subsidized food and other commodities directly to them without allowing all consumers to benefit from subsidized prices. Some attempts at targeting are already underway.

Privatization

Privatization of public sector companies is an alternative which could allow the government to earn a reasonable return on its investment in public sector companies. This option has received much attention since President Mubarak raised the issue in a speech last year. The first privatization efforts have been in tourism, particularly in government hotels. Some hotels are being operated by, and others are being sold to, private sector firms. These efforts can be spread to other manufacturing and service industries, thereby taking the pressure of investments, subsidies, and losses for these firms off the government budget. However, privatizing firms requires the government to accept many difficult consequences, including the potential for large price increases, significant employment layoffs, and closings. Further, it may entail determining a sale price in a situation where there is no competitive market.

Consequences of the Subsidies

A second option for lessening the budget deficit is limiting direct subsidies for food and other commodities. A widespread food subsidy program was begun in the 1970s and has significantly altered rational economic decisions. Bread prices are one of the most obvious examples. The price of bread was set for many years at one piaster per loaf (less than one cent per loaf).

There have been many consequences of the subsidies. Farmers often have been offered low prices for their products and given limited choice over the commodities they could grow. In response to lower potential earnings, many rural laborers have migrated to cities, exacerbating already crowded conditions in cities such as Cairo. Farm production also has expanded slowly because of fewer workers and reduced incentives for production. Low prices on commodities have encouraged inefficient purchases.

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[1] The 10 percent rate of return probably also could be achieved with a combination of improved efficiency and price increases.

For example, many people purchase more bread than they need and feed the leftovers to household pets and other animals. Finally, these production and consumption distortions have necessitated large imports of agricultural products, an alternative which was unnecessary in the 1970s. The imports of wheat and other commodities have absorbed much of the country's foreign exchange earnings and have created several foreign exchange crises.

The full government budget cost of subsidies is difficult to measure, because many of these costs are initially handled off the budget. However, total elimination of the subsidies should reduce the deficit by 3 to 4 percent of GDP. This choice also would allow many other consequences of past subsidies to be overcome.

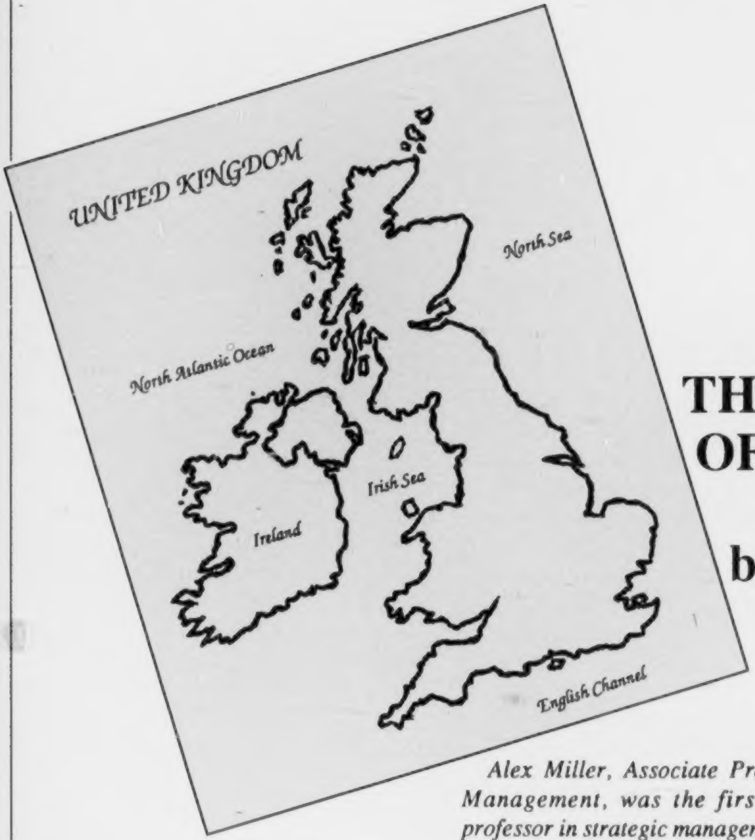
Like many other developing countries, Egypt has been hesitant to raise prices because potentially this could cause political unrest. However, some progress has already been made since the price of bread was first raised from one piaster to two, and more recently to five piasters. Incentives also are being improved for farmers and there is evidence of improving production. Careful timing of price increases and proper public information should allow elimination of subsidies to occur over a reasonable time period.

The Public Sector

The public sector is a major employer because of the government, public sector companies, and public authorities. Total government employment is 3.2 million people, without counting the public sector companies. Employment by these entities has become excessively bloated by policies such as the national policy of hiring all graduates. Wage levels are very low, and many individuals earn the equivalent of less than $50 per month. Still, the total wage cost represents about one-third of the government's current budget and has been growing faster than 19 percent annually.

The government has slowed down the hiring of graduates, but employment continues to grow. The deficit could be substantially lessened by first freezing all hiring and then gradually engaging in reductions in force. Some of the budget savings may be offset by the need to improve salary levels in order to improve worker quality.

In sum, the Egyptian government is faced with an excessive deficit, and the negative consequences will keep growing as long as it is permitted to continue. Solutions may require tax increases, but the most important changes will involve altering policies which have distorted decisions on pricing and public sector expenditures. None of the necessary restructuring is easy, but the changes are essential. ■



THE BRITISH VIEW OF '92

by Alex Miller

Alex Miller, Associate Professor of Management, was the first visiting professor in strategic management at the Cranfield Institute of Technology (CIT) in Bedford, England, from February 1 through August 1, 1989. While there he taught in the MBA and executive education programs and did research on how functional managers play a role in implementing strategies. Numerous common ties between the programs at CIT and UT insure that the research program will continue, strengthening the competitive posture of both schools.

In 1947, Winston Churchill urged a war-torn continent to reestablish itself by creating the united states of Europe. His dream was that Britain would take a strong leadership position in the transformation process. Until recently, it appeared as though that dream would soon be realized, 45 years after he first spoke of it.

Thanks in no small part to the efforts of Lord Cockfield, Britain's former representative to the European Commission, thousands of regulations that have served to divide European neighbors are scheduled to be replaced in 1992 with 300 new ones intended to unite them. Though many of these regulations are clearly modeled after similar ones in place in the U.S., Margaret Thatcher, Britain's Prime Minister and seemingly the U.S.'s staunchest ally, has now become 1992's most vocal critic. Has the Iron Lady suddenly become anti-American? Why would the British, longtime admirers of what they still sometimes consider to be their bash young offspring, resist 1992, a reorganization of the European Community that some have called the "Americanization of Europe"?

What's 1992?

To understand the British position on 1992, it is first necessary to understand what changes--both intended short-run changes and possibly unintended longer-run ones--it portends.

Although the changes taking place in Europe have been developing for decades and will continue to evolve for decades more, the drama of the event is captured best by the almost mystically symbolic year of 1992. In that year, the 12 members of the European Community -- Belgium, Britain, Denmark, France, West Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, and Spain--are scheduled to enact more than 300 regulations intended to create a single European market.

These new regulations will cover topics ranging from agricultural policy to antitrust laws to electrical plugs and outlets. Their intention is to allow the unencumbered movement of all labor, goods, and capital between the member countries. With 320 million people living in these 12 nations, the new Europe would constitute the world's strongest consumer market. It would also represent a powerful new competitor for the world's markets.

In drawing up guidelines for these sweeping changes, the 9,000 plus "Eurocrats" in Brussels, who run the EC, were led by as odd a couple as ever reshaped history. The EC's president, Jacques Delors, a French socialist, is a "big idea" man and until recently, Lord Cockfield, a former British civil servant, served as his "detail man." With Delors's encouragement, Cockfield identified 300 new laws that would be needed and identified 1992 as the target year for their enactment.

By 1988, this duo had moved the thinking of the EC in directions that Thatcher, who had originally supported the Commission's ideas on a single European market, found highly objectionable. In fact, she refused to renominate Cockfield to a second term on the Commission and she has grown increasingly more vocal and biting in her criticisms of the Commission's plans.

At the heart of most of her criticisms is a belief that the EC has strayed too far from its original goal of forming a single market, and has moved instead toward the direction of forming a single nation. The perceived threat to British sovereignty is not in the first 300 new laws themselves, but in the "natural evolutionary consequences" they may start. Once Brussels gets a taste for developing pan-European laws, who knows where it will stop? Thatcher and her followers fear that a commission that until now has always had limited power, might be emerging into a European version of our Washington, D.C. They argue that the Commission has already expanded its domain far beyond consideration of unification of its member countries' markets and that there is already talk about needs for broader social, economic, and even military changes.

Rolling Back Frontiers of the State

Delors has been an especially vocal supporter for what he calls the "social dimension" to 1992. Visiting with Britain's labor unions (Thatcher's opponents for many of the changes she has brought about during her tenure as PM), Delors described his vision of a future Europe with labor laws controlled in Brussels, 35-hour work weeks, and worker representation on all corporate boards.

Delors's vision of social reform is a far cry from Thatcher's. She has always seen 1992 as the chance for a change in direction, but not a change masterminded by socialists like Delors. Rather, she anticipated a future led by anti-socialists who shared her vision of the importance of free markets. In bashing Delors's plans, Thatcher pounded out statements like "We have not successfully rolled back the frontiers of the state in Britain to see them reimposed in Brussels."

Thatcher's critics claim that in her zealousness for minimum state intervention, she is overlooking the job-creating benefits that 1992 offers. Europe has 15 million people unemployed, and Britain's jobless represent more than a fair share. Understandably, many in Britain were impressed when the EC's study of 1992's economic impact suggested that it would create 2-3 million new jobs.

Thatcherites discount such claims. Yes, they admit, millions of new jobs will be created, but millions of others will be lost. Their arguments are based on the fact that Europe now has excess capacity in numerous important industries.

For instance, there are ten European heavy turbine-generator manufacturers and 16 locomotive manufacturers. For comparison's sake, the U.S. has only two turbine manufacturers and two locomotive manufacturers. The large numbers of European competitors in such basic industries is especially telling when one considers that their current capacity utilization rates are cripplingly low (50-70 percent), even though there are tremendous economies of scale in such operations. Thatcherites predict that when national boundaries no longer separate competitors in such industries from markets now out of their reach, shakeouts resulting in massive layoffs will ensue.

Rethinking Borders

This is not to suggest that Thatcher is opposed to removing all boundaries and border controls between European neighbors--just some of them. For instance, she is adamantly opposed to removal of border checks for drugs, terrorists, and immigrants. Countries in which drugs are already hopelessly rampant and others in which terrorists are not a problem argue that there is no way to slow the movement of "undesirables" across boundaries without slowing the movement of "desirables" as well, but for now, that appears to be a cost Thatcher is willing for Britain to pay.

Meanwhile, Thatcher has raised hackles across Europe by apparently suggesting that Eastern European countries should be considered as potential members in a unified Europe. French and German representatives differ on many points being considered by the EC, but there is wholehearted consensus on the issue of whether they should open negotiations with their counterparts from Prague and Budapest: they want nothing to do with such a plan.

Thatcher considers this to be a provincial attitude and sees danger in it. Her people worry about a future that divides Europe, East against West, and they worry about the outcome of such a division. In their scenario, a united Western Europe makes it politically feasible for the U.S. to withdraw from its heavy commitment to defense on the continent. Thatcher finds the prospect of the possible resulting face-off between Western Europe and an Eastern Europe/ Western Asia combination decidedly unattractive.

1992-Bashing: Britain's National Pastime

Thatcher's sentiments illustrate another motivation explaining Britain's waning support for the EC and 1992. As a group, the British identify much more closely with California and Pennsylvania than they do with France and Germany. The idea that membership in the "united states of Europe" would place Britain in competition with the United States of America is something that seems to have the entire country balking. In fact, 1992-bashing has become something of a national pastime for the British.

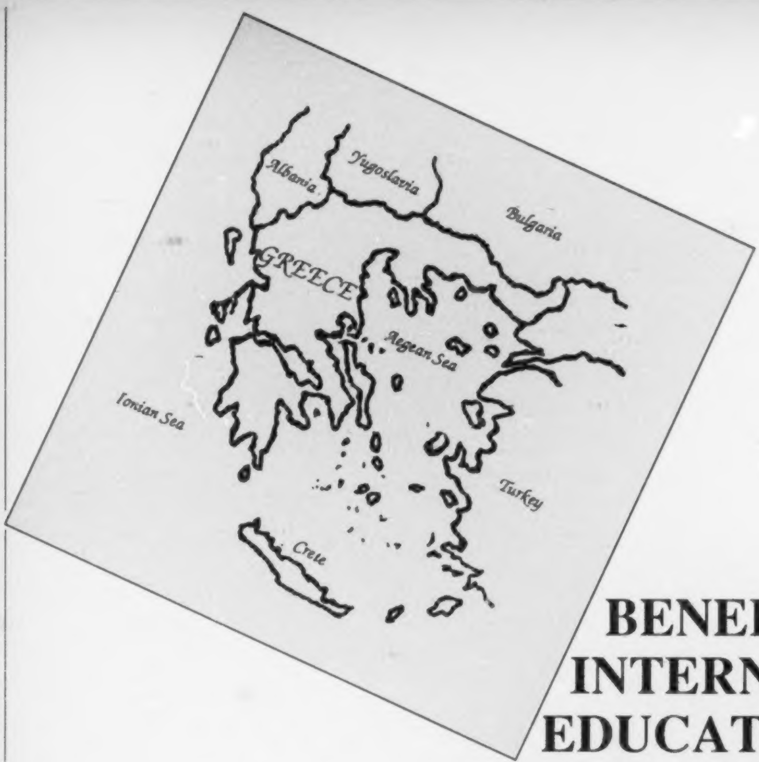
Not all of their reasons are as clearly articulated as those of their Prime Minister's. In fact, they seldom speak of what appear to be some of their strongest motivations. For instance, there is a widespread notion among the British that countries like France, Italy, and certainly Germany, are hoping to somehow legitimatize themselves through their association with something bigger. The British, on the other hand, are fiercely proud of their history and what they consider to be a fine reputation. They wonder if the same affiliation that would bolster the image of some European nations might not somehow tarnish theirs.

There are still other opinions that, while widely held by the British, remain an absolute mystery to the rest of the world. Virtually no one involved in 1992 fails to mention the importance of the plan called the European Monetary System. This is basically, a centralized banking system placing all member countries under uniform monetary guidelines and practices. To U.S. citizens who have traveled through Europe, the need for such consistencies is unquestioned. Who would dream of spending different currencies in New Hampshire and Hawaii? Yet, such an idea would not strike the British as odd at all. After all, England, Ireland, and Scotland still maintain their own currencies even today. For her part, Thatcher has vowed that the EMS will not become a reality in her lifetime.

So, is it all a mirage?

Differences as fundamental as these insure that it will not be easy for the EC to reach all its goals for 1992. Thatcher and the British have been the most outspoken critics of the EC's plans, but they have not been its only critics. Virtually every country has its own lists of objections and sticking points. However, with the possible exception of Britain, criticism of 1992 is not politically wise, so some would-be critics are letting Thatcher fight their battles for them. Undoubtedly, if Thatcher were not being such a vocal opponent, leaders in many of these other countries would be more interested in coming out of the closet with their concerns.

Until that happens, it will remain difficult to accurately assess the EC's real level of support or resistance in different countries. Clearly, many of the EC's targets will not be reached by 1992, and some of them may never be reached. One of the biggest hurdles is that there are undoubtedly many leaders who, like Thatcher, see opportunities in 1992, but they see threats as well. ■



BENEFITS OF AN INTERNATIONAL EDUCATION: EXPERIENCES IN GREECE AND CHILE

by George C. Philippatos

Dr. George C. Philippatos, who holds the CBA Distinguished Chair in Finance and Banking, was in Chile this past summer to give a series of lectures on options and futures markets, to work on a monograph, and to look into our MBA interests at the University of Santiago in order to open up new opportunities for subsequent MBA exchanges.

He was in Greece in 1988 to give a series of lectures on the challenge to Greece, Spain and Portugal as the newest entrants into the European Economic Community and their subsequent necessary adjustments in international financial markets.

Business students and faculty in the 1980s and 1990s are faced with educational and professional challenges that are likely to significantly change our global outlook. These challenges and the concomitant opportunities derive from the impact of various international developments upon our culture, national wealth and overall way of life. Technological developments, integration of world capital markets, increasing international trade, and the emergence of highly-competitive production and trade centers in Europe and the Far East--along with the encouraging sociopolitical changes in Eastern Bloc countries--have reinforced the realization that we as a country must expand our horizons and respond to the challenges of a changing and more complex world economic order.

One goal of the College of Business Administration at The University of Tennessee, Knoxville, has been to take notice of the new realities in the international community and become more active in multinational education and research activities. My own international contacts and interactions, for example, with Greece, date back to the mid-1960s and early

1970s. Another association, with Chile, was developed recently through the encouragement of our College leadership. The contacts have typically involved lectures and research in other countries, along with the systematic recruitment of potential students for our graduate business programs and the good will-generating interactions with colleagues, business executives, and government officials from many parts of the world.

In each and every case of international involvement, the professional and personal benefits have been significantly influential in my teaching, research and overall perspective. More importantly, UT and its College of Business Administration have made new friends and supporters whose interest can be measured by larger numbers of high-quality foreign applicants to our undergraduate and graduate programs. Additionally, several colleagues from other countries have visited UT's College of Business for research and faculty development purposes. These visits have increased our overall awareness of the world at large and have encouraged some of our students and faculty to consider professional visits in other countries.

Professional Experiences In Greece And Chile

Greece is the country of my cultural origins, and I have developed a number of strong professional relationships there over the past 25 years, including those with former graduate students who now hold positions in universities, business, and government.

Schools of Business in Greece operate as autonomous educational entities without the formal links to comprehensive universities that are common in the United States. This is not an unusual arrangement in Europe or Latin America, although the system is slowly changing in favor of comprehensive university affiliations. There are three well-known business schools in Greece staffed by competent educators, most of whom completed their graduate degrees in the United States or England. Their students are typically well-trained, and the more successful graduates generally pursue post-graduate studies in the United States, England, France, and Germany. The UT College of Business receives several applications each year for admission to our graduate programs, and there are presently two Ph.D. candidates from Greece in the Department of Finance.

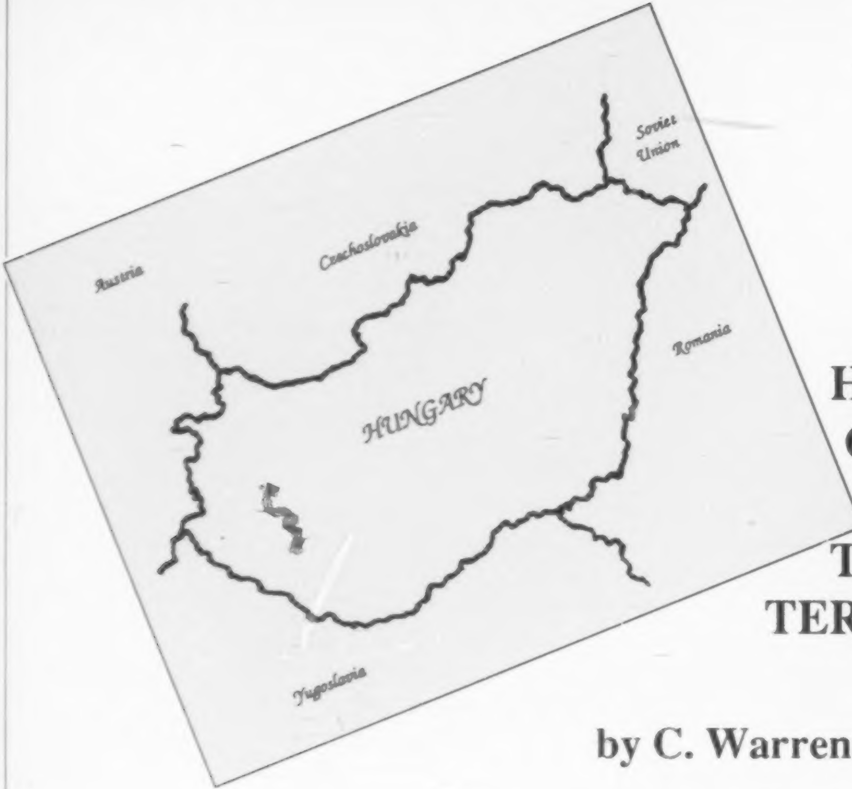
We have had several faculty from Greek business schools visit UT, mostly for research purposes. These visits have resulted in several publications, including two Greek monographs which I co-authored. Indeed, there is a strong interest among Greek business faculty for the establishment of formal student and faculty exchange programs with UT, and we hope that some arrangements can be made in the future.

Chile is another country in which I have spent considerable time in the last two to three years as a representative of UT's College of Business Administration. Our College has an agreement of professional cooperation with the School of Business of the Universidad de Santiago de Chile which involves faculty and student exchanges. Four members of our faculty have made professional visits to Santiago, and five Chilean faculty have attended academic or professional programs at UT's College of Business.

More importantly, five of our MBA students spent three months in Santiago this past summer as interns in U.S. multinational and large Chilean firms. I have had the pleasure of spending 25 days with these students recently, and I was impressed by their experiences in Chile and the subtle changes in their outlook and behavior as a result of their visit.

Arrangements are presently being made for the continuation of this exchange program, and we envision educational as well as work opportunities in Chile. We also expect the relationship between our College of Business and our Chilean partners to grow in the future, with a larger number of exchange opportunities for international teaching and research. One monograph has already been completed in Spanish as a result of joint research efforts by members of the two schools.

In perspective, international experiences for faculty members of UT's College of Business not only yield outstanding personal and professional benefits, but increase the resource value of the College itself in the international community. ■



HUNGARY'S CHALLENGE: DEALING WITH THE FUTURE IN TERMS OF THE PAST

by C. Warren Neel

In February of 1989, Warren Neel, Dean of the College of Business Administration, and Dave Hake, Director, Center for Business and Economic Research, flew to Budapest as guests of the Hungarian government. Their visit was part of a continuing cultural and educational exchange between Hungary and The University of Tennessee, Knoxville. In the following article Dean Neel records his impressions of Hungary.

Two men, Hungarian by birth, now live in Budapest. They don't know each other. They have never met. But in their philosophies and reflections about their country they are as one.

I met these gentlemen during a recent trip to Hungary with a colleague, Dave Hake. We were there as guests of the government, to learn about the country's economy. But I learned more about the spirit and tenor of the country from these two individuals than from a week of meetings, travel and cultural events.

Never before had I encountered men who spoke of their country with such possessiveness. "My country, my country," was a refrain repeated often by both. These two Hungarians were connected to the same soil though they were born into different social strata. Their lives had taken opposite paths, only to return to a common origin. Arpad is an energy executive in the Hungarian government, a party member who after 35 years of loyal and dedicated service to the cause of socialism has gained a place of power and prominence in Hungarian society. Hard work and loyalty have overcome his lack of a birthright. Well educated in science and engineering, he has traveled widely in both the Eastern bloc and Western countries and is well connected in the powerful Hungarian bureaucracy. Now in his early sixties, Arpad is fiercely dedicated to his country.

Zoltan is the 82-year-old patriarch of a family whose lineage dates back to the aristocracy of the 19th century. Like Arpad, Zoltan was well educated, but Zoltan took his degree in the humanities. An officer in the Hungarian Army during World War II, he was captured by the advancing Russians and was imprisoned along with his men, most of whom died in the frigid winter of 1945. After the war he returned to Hungary to pick up the pieces of the family legacy. Instead of a homecoming, however, he found his world turned upside down. The Russians had mandated that no returning officer or aristocrat could hold a responsible job. Thus, in the late 1940s he chose to emigrate to the U.S., where he spent 20 years in Cleveland, Ohio, as a skilled craftsman. He returned to Vienna and spent another 15 years in retirement, but in 1988 he returned to Budapest, drawn back to his roots as if by an unfulfilled dream.

Talking Forthrightly

Our stay in Hungary was to be filled by a week of talks with ministers, business executives and embassy personnel to learn about the Hungarian economy as it makes the transition from a centrally planned to a more market-driven economy. In preparation for our visit we had gathered scores of statistics on Hungary to assist us in framing some of the questions we wanted to pose to our hosts. Yet, we were convinced that replies to our queries about the current state of the country's economy would be guarded. However, meeting Arpad was a pleasant surprise. Our first meeting was at a luncheon where we were told he would accompany us the next day on a 200-kilometer trip to the nuclear plant at Paks, followed by an afternoon visit to the University at Pecs.

Promptly at eight the following morning, Arpad arrived at the hotel with a car and chauffeur from the Ministry of Industry. Snow had fallen during the night, accumulating in drifts along the roadsides and on the hills. As an unseasonable warming trend moved in from the south, fog began to layer in white blankets along the river beds. At times, poor visibility forced our driver to slow almost to a stop. These pauses were interspersed with bursts of speed exceeding 110 kilometers an hour whenever visibility cleared. We all wore heavy overcoats inside the Russian-built car, settling down for an extended drive south through the countryside paralleling the Danube. Conversation was light as I made some observations of the first four days.

"The economy of Hungary appears to have a large component in what I term the shadow economy, that portion of production and exchange that is not official," I posited. "I would guess that it may be two times greater than the "official" or "first" economy. If that be the case, the shadow economy is perhaps two-thirds of the total gross national product."

I let the comment hang for a moment, suddenly realizing that I had implied a question on a politically delicate topic, but to my surprise, Arpad answered.

"Yes, that is true," he said. "Everyone must have a second or sometimes a third job to make a decent living."

I was amazed that a party loyalist, this powerful bureaucrat, was willing to discuss his country's economic problems, not only openly, but honestly. "The economic situation in Hungary is terrible," he continued. "Today the government is increasing the price of all consumer goods 15 percent. You saw the lines at the stores, people buying items before the price increase--hoarding, you would say, yes, hoarding. Prices go up, but the government will not allow wage increases. Everyone is worried about the public's reaction. A nationally televised program on the issue is planned for tonight to address some public concerns. This shadow economy you mention cannot be controlled in the same fashion as the first economy. But that is good. It is so large, it can sustain us. Maybe during my country's trials with transition to a market economy, this second economy will save us. I don't know."

He paused, frowning, and I waited, thinking he would continue, but he was silent.

The Shadow Economy

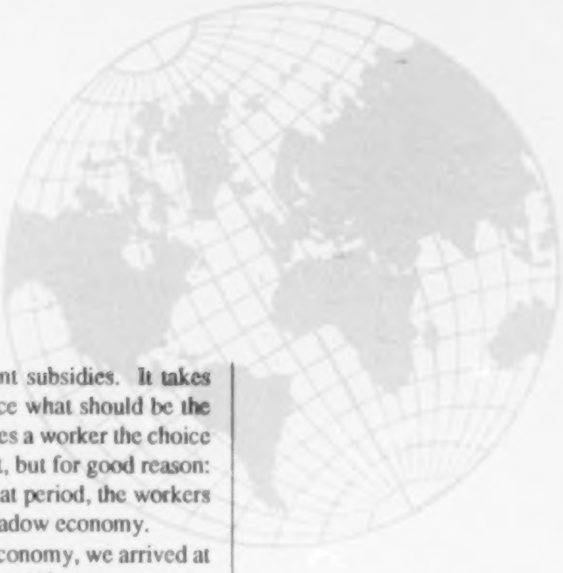
I posed another question: "How does the general population participate in the shadow economy? I have observed that everyone in Budapest seems to have an official business card, even as many as two additional cards, indicating they do something else after normal working hours. So the shadow economy works for the white-collar worker or the professional. But what about the factory worker and farmer?" Here I expected Arpad to slip into the role of my preconceived notion of the stereotypical communist bureaucrat, but he surprised me once again.

"We have accommodated to the second economy in many ways. As you may know, Hungarian farmers are members of cooperatives that have large fields and all the equipment you see along this highway. But each family of the cooperative is provided a small plot of land for itself. After regular work hours, families are allowed to use the equipment of the cooperative to make their own crops. They are free to sell the items they grow on their land at any price they can get, or to barter for things they need. Farmers also have skills that they trade or sell in their local community."

Arpad noted that factory workers are also given the same prerogative. Often, a production supervisor in a factory will have a personal labor agreement with a group of workers to produce the same items after their regular jobs that they produced during normal work hours. They are free to use the plant's equipment. The difference is that the wages for this extra work are negotiable. Furthermore, productivity and quality for the extra work are much higher than during the regular work hours.

Economic Problems

The economics system had accommodated the needs of the labor force, but not without severe problems in some industries. Steel mills, for example,



are not competitive and thus receive enormous government subsidies. It takes 30,000 people working three shifts in these mills to produce what should be the output of a single shift. Moreover, seniority in the mills gives a worker the choice to choose the shift. Most choose the 11 p.m. to 7 a.m. shift, but for good reason: no work is accomplished from 11 p.m. to 7 a.m. During that period, the workers rest or sleep so they are fresh for their second jobs in the shadow economy.

After two hours of candid discussion on the Hungarian economy, we arrived at Arpad's pride and joy--the nuclear power plant at Paks. Four 440-megawatt units were operating and another was planned for construction, all under Arpad's supervision. The facility was built in the countryside, bringing with its construction an entire village of highly educated technicians, engineers and scientists. I wondered whether it, too, had a sizeable shadow economy.

About halfway through the briefing, I suddenly realized that we had passed no security gate upon entering the grounds. I saw no guards until we entered the administration building and later the reactors and the turbine rooms. This relaxed atmosphere was in sharp contrast to the tight security at plants in the U.S. Yet another contrast suddenly became evident to me: this was a closed planned society with few barriers to this dangerous operation as opposed to a American free society where such places would be impenetrable to the citizenry.

Perquisites in a Communist Country

How can a nuclear facility operate with a work force that has second or third jobs?" I was eager to continue the morning's conversation as we climbed back into the car and continued our journey. The long ride of the morning, coupled with the candor of the stimulating conversation, seemed to have broken all apparent social and political barriers between us. Without hesitation, Arpad carefully detailed the uniqueness of the plant's workforce as it relates to the shadow economy. Workers at the nuclear plant are not allowed to have extra jobs, he said. It is too dangerous. Instead, they are paid very well. Some managers, in fact, are paid about the same as a deputy minister in the government, and there are other amenities offered similar to those given high state officials. Workers are provided housing and telephones, luxuries extremely difficult to obtain through normal channels. In addition, the village's schools boast the country's most outstanding teachers and their high school laboratories have the very best equipment and are often staffed by scientists and engineers who work at the plant.

All of these perquisites serve to assure that the staff in the plant is the best and brightest, and workers are attracted from all over Hungary. The nuclear plant is an island of capitalism in a sea of socialism. Hungary, like other societies, has learned to live with paradox in order to achieve a greater "good" for its citizens.

Arpad once again lamented about this, another anomaly in the socialistic economy, but the conversation then drifted to the beautiful landscape of farms and vineyards that parallel the Danube. By noon the fog had disappeared, revealing an

unseasonably warm, sunny afternoon for our visit to the Janos Pannonius University in Pecs.

The lengthy discussion with the University's officials was warm and spirited, but guarded, creating a stark contrast to the conversation during the morning car ride. Even Arpad noticed the officials' lack of candor and on several occasions offered his own observations when our questions were fielded by the academics. Each time he would apologize, begging no knowledge of academic matters, then proceed with the same refreshing insight he had demonstrated during the morning ride.

In late afternoon, one of our faculty hosts, an art historian, led us on a tour of the old portion of the center city. Leaving behind the questions about the economy and politics, he pointed out the Roman period architecture, in contrast to that of Turkish and other cultures. In this domain, he was effusive and eloquent. Now there was no guard; we had found a common link. Through his trained eyes we saw the ebbs and flows of over 1,000 years. Wars and panics, interspersed with periods of peace, had wreaked havoc while instilling pride in a people. Using his vast knowledge, he traced every detailed step in architectural time. Once, Arpad interrupted my concentration, leaning over to whisper, "And we didn't win one of those wars."

A thousand years of history was reflected in the buildings and street scenes, in people's faces. The tides of foreign cultures imposed on this land have not erased the soul of Hungary, but they have made it difficult to find.

The Hungarian Identity

Near the end of our walk, our group stepped into an art gallery featuring a new exhibit titled, "The Hungarian Identity." As it turned out, we walked in on a pre-opening reception in honor of the artist. Our unplanned stop provided a wonderful opportunity to meet the artist and tour the show unencumbered by the crowd gathering outside.

The artist, Sandor Pinczehelyi, commissioned to depict the cultural identity of Hungary, had obtained funds to spend six months studying in New York and later in the art colony of Pecs. Our art historian guide had just guided us through 1,000 years of artifacts. Now Mr. Pinczehelyi would show us his view of the present.

I walked silently through the show, pausing occasionally to ask my host to translate a title. I was awed by the challenge this artist had undertaken. What would be the results of a similar challenge to an American artist to provide an "American identity"? Yet, Pinczehelyi had created a commendable body of work. There was a large silk-screened canvas of red five-pointed stars overpainted by the words, "Coca-Cola" in the familiar logo. To the left of that was a series of long sticks hung vertically from the ceiling painted with the red, white and green bands of the Hungarian flag. On the floor was another five-pointed star, large enough to sit on, sculpted from what looked like compacted straw, and next to that, a jumble of rocks, all painted black, arranged like a spent campfire. One work was made up of a series of nearly floor-to-ceiling photographs of a male torso. They were different colors, all vibrant, but in every panel the head of the man was replaced by unexpected images--a pyramid, wilted weeds, a sphere. It seemed to me that there was confusion over the Hungarian identity. Still, I was deeply moved by the artist's attempt to depict a people trying to grapple with who they were and where they were in the course of history.

On the drive back to Budapest, the fog again enveloped our car like a cloak, threatening to double our return time. Arpad referred to it as "swimming in milk." For almost an hour there was a staid silence, but I still had the art exhibit on my mind when almost unconsciously I asked about the show's interpretation. But Arpad turned the conversation on a different tangent as if he, too, had been involved with his own thoughts.

"We Are Sorry"

I have lived in this country and I grew up thinking socialism is the savior," he said, sliding down into the corner of the seat. "But you know, I wonder what has happened in my 61 years. Now our leaders say that socialism doesn't work and that we are sorry. That is what they say, we are sorry." The use of the pronoun *we* was not unusual when speaking of a leadership decision in our society, but I found it odd that Arpad would use it. The general population had not participated in the process of declaring the appropriateness of socialism nor in announcing it was not working. For that matter, neither had Arpad participated. Minutes of silence passed before he continued. "Just south of here is the area that was once part of Hungary. It's called Transylvania. The remnants of Hungarian heritage remains there. But we have lost that territory. Romania has it now and is trying to erase all signs of our culture. They are destroying all the churches in Transylvania and other symbols of our past. We are losing our last chance to preserve our heritage." Tears spilled down his cheeks. "I don't know what I have done with my 61 years. Chasing a dream that now I am told is a mistake."

I made an effort to offer some comfort. "You should not blame yourself. It seems to me that both our economic systems are at a crossroads in their development. Your system began with the premise that everyone was to be equal, then through socialism there would be a working egalitarian society that would create wealth for all. We have a system that is premised upon encouraging individualism and the accumulation of personal wealth. Now we are searching for social equality. Neither of us has arrived at a point of satisfaction. We are both groping."

"Well, that is interesting," he said slowly. And then more slowly and softly he added, "But I wonder where my life went."

Later, when we stopped for a bowl of fish soup, he continued to talk about the subject that now had become so personal. Mostly, at the end, he continued blaming himself for what had happened to the country. By the time the car brought us back to the inn, we were all emotionally drained. I went upstairs for a much awaited rest only to find the day's events had so profoundly agitated my mind that I could not relax. Thus, I was wide awake until dawn.

Transferring the Culture

Twenty-four hours after the trip to Pecs, I was sitting in the living room of a Hungarian family, the nephew of the recently returned octogenarian, Zoltan. The nephew, a waiter, is fluent in four languages. His conversation was effortlessly laced with quotations from Shakespeare, Sartre, and the Apostle Paul. Uncle Zoltan, tall, distinguished and immaculately dressed, was sitting on the couch across the coffee table from me rummaging through his own history and that of his country--drinking the Hungarian herb brandy, Unicum. The rest of the family had drifted off into another room to visit with my colleague, leaving the two of us to find some common interest. Taken by his earlier discussion of wars, culture, and the current political issues, I listened intently to his monologue of Hungarian history since World War I. Suddenly, he asked, "What percentage of a population does it take to transfer the culture from one generation to the next?" As I pondered, he said, "Let's say it is 10 percent."

"Fine," I said, "10 percent."

He continued, "There were 20 million people in this country, but we were cut in half. After World War I, Romania, Czechoslovakia and Yugoslavia got 10 million or so. Let's multiply that. Ten percent gives us a million people lost who were part of our social elite, the aristocracy that had perpetuated Hungarian culture for a thousand years."

"What about the other 10 million?" I asked.

Zoltan continued. "Apply 10 percent to the other 10 million that remained in Hungary until World War II. That's another million. Some were serving in the Hungarian army. Those who were officers like myself were sent to prison. When I returned to Hungary a system had been put in place so that we could never hold a responsible job. Those who did not die in prison or die in the forced marches during the cold of that 1945 winter were never to hold a position of responsibility. We were socially and culturally cut off from the heritage, although we were the bearers of the country's culture. Another large group of that million emigrated to other countries. The remainder of those who could have perpetuated culture were assassinated. The Russians placed people in charge who knew nothing of the Hungarian culture."

"Why did you return?" I asked.

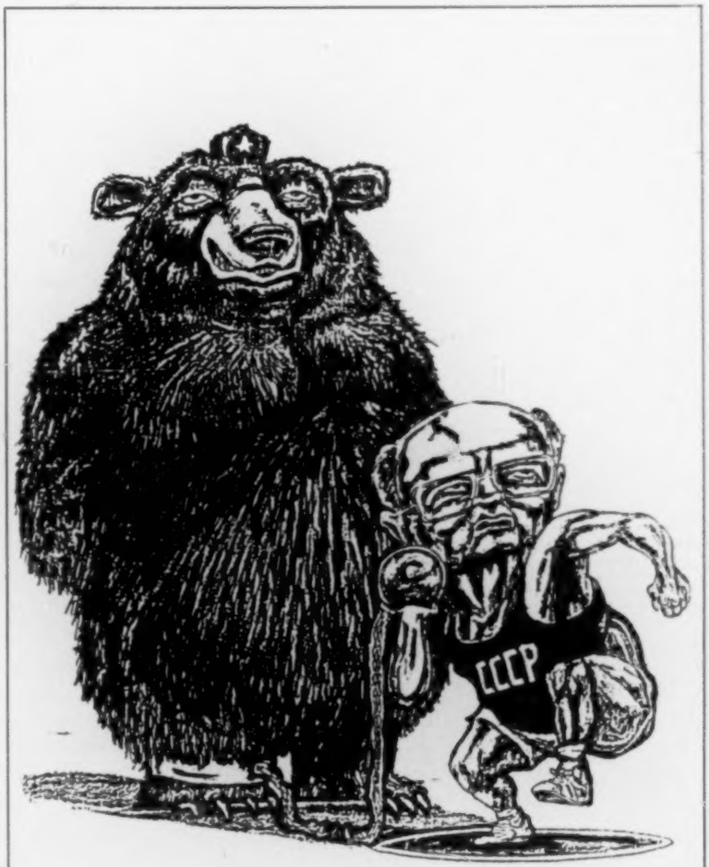
"Well, where else does one go?" said Zoltan quietly. "I lived in Cleveland, Ohio for 20 years, but as you can see from my broken English, I never learned the language. Hungary is my home." Zoltan's nephew had told me that Zoltan had returned to Hungary because in his heart he had never left. The old man had been back only a few months but already he spoke of people and places as if the thirty-five years away was a small aberration in his life.

Making the Transition

He excused himself to tend to a persistent cough and to pour another glass of Unicum. When he returned and was comfortably seated again, I shifted the subject. "How do you feel about glasnost and perestroika, the new Soviet policies?" I asked. "How will Hungary make the transition?"

He slid forward to the edge of the couch, placing both elbows on his knees while holding his white bearded face in the palms of his hands. "I am very despondent about Hungary ever making the transition. I am equally despondent that the Americans will have wool pulled over their eyes by the Russians. You Americans want their ideas to work so badly that you will believe anything. Be careful. Gorbachev has problems at home that don't appear to you. And they are not all economic problems. Don't forget he is a good politician."

Zoltan's caution reminded me of the previous day when we were at the University and I had observed a political cartoon posted on the student bulletin board as we walked down a hall in the administration building. The artist had drawn a caricature of Gorbachev as he practiced throwing the shot put for a track meet. Gorbachev was dressed in track shorts with a numbered jersey and standing in the shot put circle. His arm was cocked behind his ear, the steel ball poised firmly in his hand. Behind Mr. Gorbachev, the artist had drawn a huge grinning bear, the historical symbol of Russia. Upon closer inspection, I saw that the steel ball had a chain affixed to it, dropping down behind Gorbachev's arm and manacled to the bear's foot. Without knowing the language, I understood what the student artist was saying: How far can Mr. Gorbachev throw this new political economy before the old norms refuse to move any further and devour the thrower?



A New Generation

Zoltan's grandnephew walked in and sat down. At twenty-one he is facing a difficult personal decision and had been engaged in a discussion with Zoltan earlier that evening. Months earlier the young man had gotten his first job in one of the new commercial banks. He was then selected to become a member of the first training group to help administer the second-tier banking system in the transitioning economy. This was an opportunity to have a really magnificent career in an institution that was to help lead the country back to a free market society. Little more than halfway through the training course, he received his draft notice to report to the military for two years' duty. He knew the country had no recent experience with young men needing the protection of the law to preserve their jobs while they served the country. He doubted the bank would maintain his position while he was gone. Now he was faced with the decision of going into the service and taking the chance of finding such an opportunity again two years later, or, like his great uncle, to emigrate. Maybe, he reasoned, he could return in five years and things would be better. He joined his great uncle on the couch and talked of his dilemma.

I sat quietly observing this painful scene. Here was Zoltan, a fellow 82 years of age trying to make sure that, while he might never see his nephew again, it was vital that the young man recognize the real issues before Hungary. In his way, Zoltan was planting seeds of the Hungarian culture in his grandnephew's mind. The enormity of the old man's task seemed overwhelming to me as I watched their pained faces. At that moment I believed that another generation would survive, perhaps for a time in another land, but in season would return to flower in Hungary.

Dealing with the Future

The next morning we left Hungary. In the air somewhere over the Northern Alps, I began reflecting on the hectic schedule of the last eight days and tried to create some pattern from all the diverse conversations. I reviewed time, place, and person. But mostly I thought of Arpad and Zoltan, two remarkable people. They had been forged by the same crucible, the same culture. They knew what the issues were beyond the story told with statistics and the cold economic jargon I had come to this country to discuss. If "new" market-oriented socialism was to work in Hungary, it must work in the context of the culture, or it would not survive. Arpad and Zoltan recognized that a cultural heritage gives rise to nationalism and that both Russia and Hungary must deal with this fact before they deal with the new economics.

Perhaps that is the challenge of Hungary: to try to deal with the future in the context of the devastation of its history. Perhaps struggle toward "market-socialism" would be easier without a clear identity and certainty of a tradition. In another sense, even if Hungarians get to wherever the politicians suggest the country go, they may be at a loss, because that place will be foreign to their cultural references.

Then it occurred to me there must be thousands of Arpads and Zoltans in Hungary, and still other thousands around the world, each carrying those valuable cultural seeds of a shared history. Even those who were not of the social order ordained to convey the culture have that seed of history and in time will find that the only soil that produces a flower in full bloom is home in Hungary. ■

Austria
Czechoslovakia
Soviet Union
HUNGARY
Romania
Yugoslavia

HUNGARIAN GOULASH

by David A. Hake

Dave Hake has made four visits to Hungary, the most recent in February 1989 with CBA Dean C. Warren Neel. He has recently been awarded a grant from the U.S. Information Agency to lead a tour of university rectors from six Eastern Bloc countries, as they assess the role of American universities in regional economic development. L. Evans Roth, UT Professor of Zoology, is co-project director. The seven-city, 21-day tour in the spring of 1990 will include UT and three other universities and three state capitols.

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My initial impression of Hungary was formed by *The Secret Ways*, an Alistair MacLean spy novel set in late 1940s, the early years of the cold war. My only memory from that earlier reading was of the infamous Hungarian KGB and their Budapest address, the mere mention of which struck fear into the hearts of those who knew--Number 60 Andrassy Ut. Never in my wildest dreams did I imagine that one day I would be standing before that very door, in this same country which now leads economic reform in the Soviet Bloc.

A chance meeting with an official in the Hungarian delegation to the 1982 World's Fair in Knoxville led to an invitation to visit the country in 1985 as an advisor to that official who had recently become the Minister of Industry. To prepare for the trip, I sought information from every source, but statistics from a United Nation bulletin and a World Bank study did little to satisfy my human curiosity.

I reread *The Secret Ways*. This time through the yarn, I felt the author's personal attempt to grapple with superpower relations--to put forward through a fictitious novel, based in part on fact, his own suggestion for rapproachment between the West and the Soviet Bloc. As we boarded the Soviet-made Malev jet in Frankfort for the flight to Budapest, I was intensely aware

that I had grown up in the cold war era with a deep-rooted knowledge of the possibility of nuclear war--and that if it happened it would not be our fault. (As if that mattered!) As we landed in Budapest I realized I was seeking my own rapproachment.

Since that first trip, five UT faculty colleagues have been to Hungary in official capacities, and nine Hungarians have visited the College of Business for research and study, totalling nearly 30 person months of interraction. Following is a series of anecdotes, more or less in chronological order, from my interactions with Hungary and Hungarians from 1985 to the present.

Fiction Becomes Nonfiction

We were met at the airport in Budapest by an English-speaking official from the Ministry of Industry. Her name was Judit. In the VIP lounge we were welcomed with flowers and Unicum, a potent black brandy made from 22 herbs according to a recipe unchanged in over 200 years--about as long as the life of the United States. A car and a driver named Lajos had also been assigned from the Ministry. Lajos spoke no English. As the car pulled away from the airport and headed toward Budapest, I asked Judit if we would be driving near Andrassy Ut. (*Ut* means street in Hungarian.) Lajos and Judit looked stunned. Judit asked me to repeat the question, and the driver, Lajos, laughed out loud. Judit asked how I knew such a name. She said that the street had been named after an old and honored Hungarian family during the 1000th anniversary of Budapest held in 1890. A few years after World War II, the street name was changed from Andrassy to Stalin Ut, and more recently had been renamed the Street of the New Peoples Republic. From the reaction of both the official and the driver, Andrassy had not been forgotten.

Finding A Common Language

Occasionally during my visit, appointments were made for me, and Lajos, the Ministry driver, delivered me from place to place. Interpreters were provided at the meetings, but in between, it was up to Lajos and me to get along as best we could. We had at least one thing in common--he spoke no English and I spoke no Hungarian. Over several weeks, Lajos and I spent quite some time together. He taught me some words and phrases in Hungarian, which, I discovered, is really a very soothing language to listen to, although a very difficult one to learn. Of course there were the obligatory polite words and, for me, quite a variety of phrases Lajos taught me about food as I became an avid fan of Hungarian cuisine. Soup is eaten at nearly every meal, lettuce-based salads hardly ever. There are hundreds of soups. *Gulyas*, goulash in English, is perhaps the best known. I thought it seemed similar to our vegetable soup, with larger pieces of meat. Foods which were my particular favorites were *hideg meggy leves*, a divine cold soup made with sour cherries as big as quarters, and any one of several meats in a rich sauce loaded with paprika.

Also, I learned Hungarian words for weeping willow (*szomorú füz*), acorn (*makk*), wild poppy (*pipacs*), well of the Hortobagy (*gémés* kút), horseman of the Hortobagy or a sort of Hungarian cowboy (*csikós*), it's a beautiful day (*szép idö van*), there is a beautiful woman (*ott van* *egy gyönyörü nö*), and very important, the names of the exceptional Hungarian fruit brandies--cherry (*cseresznye pálinka*), apricot (*barack pálinka*) and pear brandy (*körte pálinka*).

To an extent, Hungary has been culturally isolated from its neighboring countries, because the Hungarian language shares roots with neither Germanic nor Slavic nor Latin-based languages. The language root of Finno-Ugric is shared in the world only by the Finnish. While this anomaly has contributed to Hungary's isolation, it has also contributed to its survival and its capacity to provide a window between the economic powers in the West and the Soviet Union.

The Russian Influence

I expected to see soldiers standing around with guns at the ready in Hungary. This was not the case. Lajos taught me how to tell the difference between Soviet and Hungarian military by their shoulder patches and armbands (CN for Soviets, MN for Hungarians). I saw few Hungarian soldiers on the streets of Budapest--and Russian soldiers were rarely seen at all. There were about 200,000 Soviet military in Hungary in 1985, but they were supposed to maintain low profile--i.e., stay out of the cities. (During our January 1989 trip we heard that about one-third of the Soviet troops were to be withdrawn.) In general, the Hungarian population and Soviet military did not seem to mix. Housing and schooling for Soviet citizens were strictly segregated. One day driving in the countryside we came up behind a Soviet bus full of Soviet schoolchildren on an outing. As the bus turned onto a side road it seemed as if the children were as curious about us as we were about them.

Learning About Hungary

On the second day of my first trip, the Ministry hired a guide to help show me to the country. The guide was one of the recently legalized private sector entrepreneurs. His English was passable, so he hired himself out through a tour guide service to earn extra money. While visiting typical tourist sites in Budapest, he taught me some interesting facts about Hungary:

- He liked the new law allowing private sector small businesses. He and three friends started a heating/air conditioning business, but since they could not get a business loan (in 1985 there were no commercial banks) they each worked an additional one or two jobs to help out with cash flow. Although he was happy to be in business for himself, he had two young children he rarely saw. He confided that he had also developed stomach ulcers.

- A car costs from 80,000 to 150,000 forints, which equals $1,300 to $2,600 at official exchange rates of 50 to 60 forints per dollar. This may sound like a bargain to American car buyers; however, that amount represents one to two years' salary for the average Hungarian. An auto is ordered through a government agency which requires half the total cost be paid up front in cash and does not take trade-ins. Since there are no consumer banks yet in Hungary, auto loans generally are not possible. The other half of the total cost is due on delivery of the car,

which takes from three to five years, depending on the make desired. Choices are Lada (USSR), Trabant (USSR), Dascia (Romania), Polski Fiat (Poland), etc. Autos from outside the Soviet bloc countries require hard, or convertible currency, which renders them prohibitively expensive. One way to get around the three-to-five year wait for an auto is to buy a used car. This is always a private transaction, since there are no used car lots. Also, if the buyer has hard currency, it is possible to take immediate delivery on an new Eastern bloc auto. Fifty percent down payment in forints on a new car buys the consumer a serial number. Serial numbers for availability are published periodically in the daily newspaper. All autos for Budapest, a city of 2,500,000 people (about 25% of total national population), are delivered to the same site for owner pickup. One liter of gas, sometimes less, is supplied in the tank. Some people run out of gas before they get to a filling station.

- To get a residential telephone in Budapest requires an average 12-year wait--longer in the countryside. The switching technology is WWII vintage, to a great extent. Telecommunications infrastructure improvements are frustrated by the age of the buildings, years of neglect, and need to import much of the equipment from the West.

- To get an apartment in Budapest requires an average 20-year wait. In most cases, young marrieds live with in-laws or other relatives, sometimes until their own children are nearly grown.

- Despite the aforementioned problems with car, telephone, and apartment conditions, Hungary is generally acknowledged to be in the bow of the ship of economic reform (glasnost) and openness (perestroika) within the Soviet Bloc. Due to its natural beauty and relatively open economy, it is a favorite barter trade and tourist destination for citizens of other bloc nations.

Through the Hortobagy

On a trip to eastern Hungary we passed through the Hortobagy, the "siksag" or great plains of Hungary, with soil so rich that, as Lajos said, you could stick a broom in the ground upside-down and it would begin to grow. We passed flocks of domestic geese so large that, at a distance, I thought it had somehow snowed in summer. We drove over a beautiful nine-arched bridge that I just had to stop to photograph. Later I learned it was the first bridge built in Hungary.

Our destination was the Tisza Electric Cooperative (providing electricity for about one-third of Hungary), where we were to stay in a hotel/training/holiday house for the Co-op employees. The manager of the hotel was waiting for us on the front steps as our car pulled up. We went immediately to the dining room for a meal. Our table was in the center of the room, and we were the only diners. The table, set for the ten persons in our party, including the drivers, was decorated with fresh flowers on either side of two flags--American and Hungarian. I was deeply moved by the gesture. During lunch I noticed we had a different waitress for each course. One would bring a dish and another would come to remove it. I commented to our host, the manager, who apologized, saying the kitchen staff were all curious--they wanted to see what an American looked like. We were the first Americans to visit that hotel. I suggested he ask the staff to come out so we could meet them. Later, as the realization of the responsibility sank in, I hoped that, as a representative of all my country, I had exhibited proper table manners.

Growing Pains

In downtown Budapest we toured the main tourist and shopping district--Vaci utca (pronounced Vaughtsee ootsa). The streets were mostly torn up, with great holes and pits where pipes and utilities were being installed and new shops were being built on both sides of the street for private ownership. The few shops completed in 1985 were similar to the best I was accustomed to in the United States. At the end of the walking tour I went into the Budapest Atrium Hyatt, anticipating a spectacular lobby. I was not disappointed. This one included an old airplane hanging 60 feet or so above the marble floor. I was embarrassed when I realized that the least expensive room for one night cost roughly one month's wage for the average Hungarian.

Bread and Comfort

On our way to the apartment of newfound friends in Budapest, I made a stop to purchase a bottle of wine at a corner liquor store I had noticed near our hotel earlier in the week. I was surprised to discover it was also a grocery store. To the left of the front door, and visible from the street, were long shelves of vodka and wines in abundance. To the right of the door were shelves filled with loaves of bread of all description. The groceries were shelved toward the rear of the store. Unlike grocery stores in America, where the most frequently sought items are in the back of the store to stimulate impulse purchases, this store was arranged with the most sought-after goods, vodka and bread, closest to the door to facilitate a quick exchange. This made sense when I thought about it, and even more so when I realized there was essentially just one brand of most goods anyway. I recalled data from a 1983 World Health Organization report: among the developed nations, Hungary was high in alcoholism and had the world's highest suicide rate.

A Lack of Communication

From a visit to a planning institute I learned that it took three years to develop the detail orders for a particular industry and that this was done with the aid of an American mainframe computer. The national plan for another complementary industry similarly required three years to develop, and this was accomplished with a Soviet-made computer. The industries wished to coordinate planning between themselves, but their computers didn't speak the same language.

During a visit to a large factory in the durable goods industry, I asked the manager how decisions were made on out-sourcing -- that is, whether to manufacture a part within the factory or purchase it from outside. He was reluctant to answer, but after a brief untrans-

lated conversation in Hungarian with the official who accompanied me from the Ministry of Industry, he responded that such decisions were made at a higher level. I asked if he would elaborate. He told of how under trade agreements within Comecon (the bloc equivalent of the European Common Market) industries were required to buy a critical part from a foundry in the USSR. The Soviet-made castings frequently cracked when in service. This rendered the product useless until repair could be arranged, which required a large, well-equipped repair shop. I commented that this must be a big handicap to their product's reliability. The factory official simply shrugged and commented, with what I thought was a grin, that the same agreement that required them to buy parts from the foundry also specified that one-third of their entire production be shipped to the USSR for use mainly in rural areas.

During another plant visit it turned out that the English interpreter was also the plant's chief design engineer. He told me he did this as a way to earn additional money. Late in the visit when he and I were walking alone, he mentioned that many of the recent technological advances in his field were made in America and had been included in several books used as texts in U.S. engineering schools. Access to these books would enable him to improve the design of a major product made in that plant. Since hard currency was strictly rationed, he had been unable to get the books and asked if I would buy them and send them to him after returning to the States. I checked it out. The four books cost $150. I never could justify spending the money personally, but it still bothers me that I did not help.

A Surplus of Forints

Over breakfast on the last day of a trip I mentioned an embarrassing incident to Lazlo Kapolyi, the Minister of Industry and host for the trip. For two days before, the Ministry had graciously provided a car, driver and a guide with excellent knowledge of Hungarian history for cultural excursions around Budapest. Exceptionally impressed with the day's events, particularly a trip to the wonderful National Museum, and having surplus forints (the government will not allow foreigners to exchange forints for dollars; forints must be spent within the country) I offered a rather large tip to the driver and also to the guide at day's end. The driver accepted the forints, but the historian/guide (she was also an attorney, with tour guiding as a second job) was indignant that I would make such an offer to a professional person. Explaining my forint surplus did not help. The farewell was strained. Minister Kapolyi listened with patience, suggested that I not worry: the guide would probably recover. Then he told the following story.

A few weeks earlier Minister Kapolyi had been waiting to board a plane at the Budapest airport for a trip to Frankfort, Germany. A young man in the waiting area asked if Minister Kapolyi would please help his elderly grandmother, who was also going to Frankfort with her carry-on luggage. Her eyesight was poor and she was hard of hearing. He also asked, if it wouldn't be too much trouble, that he help the grandmother from the plane in Frankfort to the baggage area, where a grandnephew would pick her up. Minister Kapolyi agreed. At the Frankfort airport the minister was strug-

gling with his own and Grandmother's luggage, which included two large shopping bags. His attempts at conversation were frustrated because of her handicaps. The best he could do was just to follow her through the crowded airport and try to keep up. Finally Grandmother spotted her relatives, including the nephew, a sturdy, well-dressed man of 45 or so. By the time Minister Kapolyi caught up, the greetings were over and Grandmother had begun to walk away with her relatives. She had forgotten the minister. Noticing the minister carrying the grandmother's baggage, the nephew motioned for him to bring the luggage and follow them outside. It seemed simpler to comply than to attempt explanations. When at last they arrived at a taxi stand, the nephew handed the minister a tip. He started to refuse, but realized to explain then would risk embarrassment for Grandmother and take too much time. So he took the money from the nephew. Just then, another elderly woman emerged from a taxi, and seeing the minister accepting the tip, asked him to take her luggage. Again he pondered what to do, and it seemed simpler just to comply than attempt a multilingual explanation in front of Grandmother's family. He picked up the luggage and followed the lady into the airport. Minister Kapolyi said the second lady's luggage was much heavier, and she didn't tip nearly as well.

Meeting the Rector

Buda and Pest are two ancient towns (1000 years) grown together as Budapest (pronounced Budapesht) and separated by the Danube River. The Karl Marx University of Economic Sciences is located on the Danube on the Pest side of the river. With an enrollment of about 4,000, it is the country's leading social science university. The main building of the university is in the old customs house. Recently restored outside and completely renovated inside, it is massive, with beautiful and heavily worn rose-colored marble staircases throughout. It was there in 1985 that I first met Rector (president) Csaba Csaki. It was mid-July and it was hot. Anxious about the meeting, I wore my black suit and last fresh white shirt. The secretary seated me in the rector's office and gave me a cup of coffee. Wearing an open-collar short-sleeved shirt, the rector came in with right hand extended and a big smile. He introduced himself in near flawless English and asked that I please call him Csaba. Phonetically, his name is pronounced *Chabba Chalky*. We were soon talking easily.

His problems were not much different from those at UT --faculty salaries, operating budget problems, struggles to update the curriculum, etc. A professor of agricultural economics, he had just been appointed rector for a three-year term. I asked what he saw as the biggest challenge facing Hungary and also his greatest challege at the university. He responded that the two were related: Hungary's biggest problem was the lack of management personnel with a market-oriented focus. His goal was to establish a business school to the MBA-level inside the Karl Marx University. He asked if I could imagine the difficulty of such a task -- where to go to hire finance, management and marketing faculty? To a great extent they would have to be built from inside. This was a formidable task. I wished him well.

By June, 1987 he had secured a $500,000 grant from the New York-based Soros Foundation to fund the travel and 6- to 12-month duration visits for each of 45 Hungarian social science faculty to business schools in Western Europe and America (two-thirds to the U.S.) to study western business education from both a content and pedagogical point of view. One such professor, Ivan Belyacz, studied and conducted research in the College of Business Administration at U.T. from September 1988 to February 1989.

In June, 1989 Rector Csaki introduced President George Bush from the auditorium at Karl Marx University for President Bush's major address on economic reform in Hungary. The address was televised live to the U.S. I recognized the location of the platform erected for the occasion. Behind the podium hung large wall-sized versions of the Hungarian and American flags, side by side as a backdrop for the podium. (These flags also had the effect of screening from view the large statue of Karl Marx at the end of the auditorium.)

Information Systems

Information systems seem to be somewhat neglected in Hungary. During a 1987 trip I heard references to "phantom" or dual data systems--where a firm maintains two sets of information. One set is the result of a newly developed "profit- center-based" information system. This is the actual data used to manage activity of the enterprise. The other set, the phantom, is kept by a separate staff solely for filling out and filing reports for historic reporting systems established by various ministries. Upon inquiry I learned that the ministries had rejected the new data, as there were no forms or procedures to accommodate that information. The phantom satisfied the government.

A professor at the University of Economic Sciences told me of her excitement at discovering the only known data set of inventories of a major Hungarian industry which went back a number of years. The data were in the possession of an official in the Finance Ministry. An appointment was made to visit and copy the data. The researcher arrived to find a troubled official, who explained that hours earlier all the inventory history had been erased by a clerk in the office who had needed a supply of blank microcomputer diskettes. There were no copies of the data, and the original forms had long ago been discarded.

Welcome to the Market Economy

It was a hot day at Lake Balaton, Europe's largest lake, about three hours' drive southwest of Budapest. Balaton is a beautiful lake no more than waist-deep even 200 or 300 yards from the southern shore. I was walking with an official of the Ministry of Industry who had recently returned from a six-month stay in the United States to study a market economy and aid his country in its serious efforts toward market reform of the traditional command economy. Zoltan relished the time spent in America and praised it warmly among government colleagues and friends alike.

Zoltan began, with obvious pride, to recount the story of his wife's cousin who two years earlier had quit his job with one

of the state-owned industries, moved his family to the Balaton, and opened a private family-owned firm under the new laws. He, his wife and daughter, and a couple of other relatives had developed a skill with the air brush and operated a tee shirt concession for summer tourists. Business was booming. Zoltan told how the cousin had to work only four months a year to make a living. I asked, "About how much does your cousin earn a year?" Zoltan had never really thought that through, but from his knowledge of the business volume we were able to guess at costs of business and estimate a net profit. He was a bit peeved when he realized the cousin was earning three to four times his own annual salary! "It's just not fair that he should make three times more than me, and work one-third as long to do it!" he said.

There was silence between us as we walked on in the midday sun. After a while I said, "You know Zolt, you could quit your job and give the private sector a try." He said, "Give up my job in the Ministry? What if I didn't succeed? I wouldn't make any money at all!" As gently as possible I said, "Welcome to the market economy." We enjoyed the feeling of sun on our backs as we walked in silence the rest of the way to the guesthouse of the Ministry on the shore of beautiful Lake Balaton.

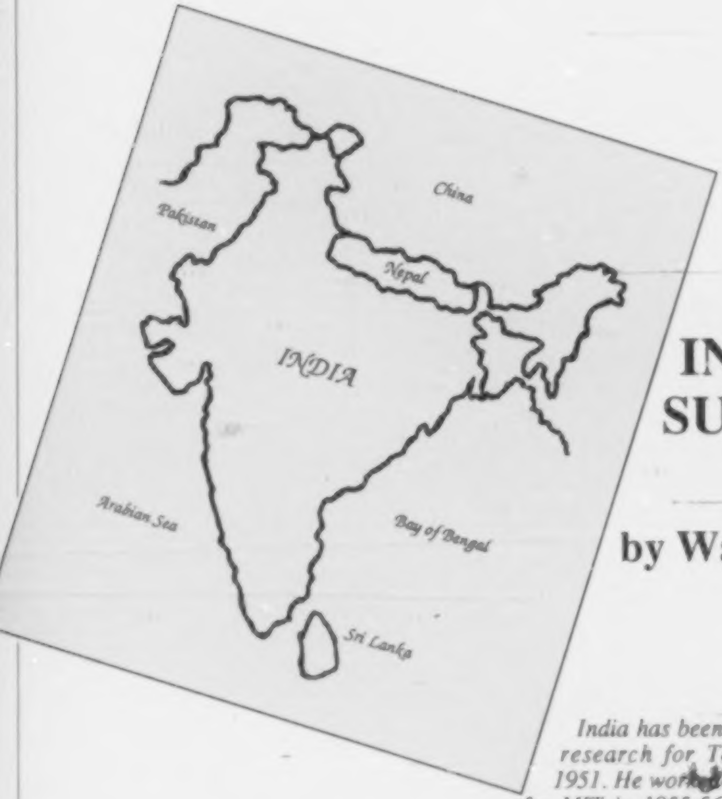
Coronation Church

We had arrived early enough to get close to the front of the line outside Mátyás Templom, also called Coronation Church, at the top of Castle Hill in Buda. Mátyás was the name of the first Hungarian King crowned in this church some 450 years earlier. All subsequent kings had been crowned here also. Hungarian mythology says Mátyás was the last good king of Hungary. Good King Mátyás used to travel incognito throughout Hungary to check out the behavior of his court firsthand.

A thoughtful friend had purchased tickets for the organ concert weeks earlier. Tickets went on sale to the public for 20 forints (about 40 cents) and they sold out quickly. Cultural opportunities abound in Hungary at very low prices, which make them accessible to all. The drawback is that there is no reserved seating. So we had time to wait, once inside.

What a treat! Original (yes, original!) tapestries still hang from the columns in the church. During periods of war they were removed and then rehung. It was late in the day, and the setting sun through the stained glass windows set the inside of the church ablaze with color. The organist was German, the music Wagner and Beethoven, and the organ was said to be one of the two best in Hungary. I must have happened to choose the acoustical sweet-spot in the church, because when the concert began, the sound was incredible. A music lover all my life, I have had many moving experiences with music, but nothing in my past, nor since, has reached the height I felt that evening in the Coronation Church. At one point I felt truly outside myself. Notes simply ceased. I felt the totality of the sound in every fiber of my being. Rapture is the only word that comes to mind. I was quiet for some time after the concert, at peace inside.

From an imaginary excursion in *The Secret Ways* to a soul-stirring concert in Coronation Church, I had found my rapprochement. ■



INDIA: THE SECRET SUCCESS STORY

by Walter C. Neale

India has been the major field of research for Terry Neale since 1951. He worked on village surveys for MIT in 1955-56, was a Fulbright professor studying rural markets in 1960-61, and studied rural planning and economic administration under a Fulbright-Hayes scholarship during 1964-65. In the years 1978, 1979 and 1983 he spent six weeks during each visit conducting follow-up studies of his previous research. Currently, with John Adams of Maryland, he is working on the third edition of their book, ***India: The Search for Unity, Democracy, and Progress.*** *His most recent book (1989) is* ***Developing Rural India: Policies, Politics, and Progress****.*

India is a third-world success story that has been overlooked by the American press. Historically, it has been considered a backward country. But in fact, when viewed from a political perspective, India has been one of the very few third-world countries in Asia and Africa to have had a functioning democracy with civil rights and civil liberties for most of the past 40 years. (Although from 1975 to 1977 Indira Gandhi's government was a dictatorship, it was probably the only dictatorship to end with the dictator calling for and conducting truly free elections.) Economically, India has progressed steadily, and, since 1982, at an accelerating rate. India now ranks among the world's dozen largest producers of industrial goods.

It is not clear why this success story has gone unnoted in the United States. Older readers may remember the movie *Gunga Din*, in which a mad Indian throws people into a snake-pit. They are even more likely to remember the obnoxious, self-righteous behavior of Krishna Menon when he was Indian ambassador to the United Nations. Both older and younger readers may recall a similar snake-pit scene in Indiana Jones and the Temple of Doom, as well as India's "tilt" toward the Soviet Union. Thus, we have all acquired an impression that India is a country confused or unbalanced. The impression is understandable, but it is grossly inaccurate. (There are more snake pits in Appalachia than in India). India's alliance with Russia is not based upon any common ideology or outlook. Rather, it is based on the old, universal principles of international relations in a world of nation-states: "My neighbor's neighbor is my friend" and "My enemy's enemy is my friend." China is the neighbor of both India and Russia; and China has been and is potentially the enemy of both. But, importantly, India has been reducing its dependence upon Soviet support by buying arms from Sweden and France. Except for her different relationship to China, India's general interests, ideology, and outlook are very similar to those of the United States. Happy Indo-U.S. relations, economic and governmental, are quite possible.

Some Issues Of Common Interest

Indian Economic Growth. Since 1950, all sectors of the Indian economy have grown, and grown faster than her population (which has increased at a consistent 2.25 percent per year). The growth of agricultural output has averaged 3 percent per year. Until the early 1980s, industrial output grew at 5 to 6 percent per year; and the growth in services, transportation, and trade exceeded 3 percent.

Beginning in 1982, economic progress became more rapid: industrial output has been increasing at upwards of 8 percent and the GNP at 5 percent per year. Agricultural growth remains at about 3 percent, which is still faster than the growth in population. By the end of this century, India's per capita GNP will be more than 2.5 times its level in 1950.

Famines. India has abolished famines. The last one occurred during World War II. There is often confusion in the American press when the Indians announce a "famine." Such announcements are legal matters, not cases of starvation. They can be compared to situations in this country when the president designates an area which has experienced a natural catastrophe as a "disaster area." Similarly, if crops fail in some part of India, the Indian government declares a "famine tract"-- suspending normal rules and allowing the Indian government to bring in food to sell at temporary government outlets and to set up centers for public works (road building, clearing of drainage ditches) so that the local population can earn money to buy the food. During the 1950s and most of the 1960s, India did need to import one or two to four or five million tons of foodgrains each year to feed its population, but output was growing, and by 1969 India was self-sufficient in food. In fact, during the last decade, she has, on average, been a slight net exporter of foodgrains. (By way of comparison and taking the last 40 years as a whole, China's imports of food have been greater than India's; and, while India no longer needs to import food, China still does.)

Industry. The range of goods that India manufactures compares with that of other industrialized countries: from razor blades to heavy electrical generating equipment; from tableware to tanks and military aircraft; from electric teapots to nuclear generating stations. (India imports enriched uranium from the United States for its nuclear generators, but she does not need to do so. She has the knowledge and capacity to generate electricity from nuclear energy all on her own. However, as an Indian diplomat expressed to me, the treaty governing the supply of enriched uranium is the only formal treaty relationship between India and the United States, and India wants to at least maintain this one friendly treaty.)

Exports. India has now become an important exporter of manufactured goods to many countries (including the United States and Western Europe), and, most especially and importantly, to the countries of the Middle East and East Africa. India is now a major supplier of manufactures, to East Africa and Southeast Asia, especially motors, and she is *the* supplier of railway engines, carriages, and other railway equipment to East Africa. India has also become a major competitor to American and European firms in the construction of large civil engineering works in the Middle East--for instance, ports and dock facilities in the Persian Gulf area and an airport in Egypt.

Imports. India has always controlled her volume of imports by requiring licenses. Since 1980 licenses have been granted for a wider range of goods, and the licensing procedures have become less complex and burdensome. The Bush Administration's listing (June '89) of India, along with Japan and Brazil, as 'unfair traders' may have some effect in further loosening India's controls, but probably not much effect. Exporters to India will continue to have to deal with India's licensing authorities. However irritating the procedures may sometimes be (and they can be very irritating), exporters--and governments and international financial organizations--need to recognize that a major reason that India has not had a foreign debt problem is that she makes sure that Indians do not import more than India can afford.

Foreign debt has not been a problem for India. What is called the "third world debt problem" is not really a third-world debt problem, but (so far) largely a Latin American and African problem. India's foreign debt is one-sixth of her GNP. While her total debt is rising, the ratio of debt to GNP remains almost constant. This compares with a tripling, between 1970 and 1987, of the ratio of debt to GNP for Argentina, Brazil, and Chile; a fourfold increase for Mexico; and increases of 15 and 26 times for Zaire and Nigeria.

Foreign Investment in India. India welcomes investment by foreign firms. Everyone is aware of the disaster at Bhopal. Fewer are aware that strung out along the roads around Bhopal and many other places there are factories and processing plants belonging to foreign firms, many of them American.

India does put constraints upon foreign investors. First, India is not wide open to investment from abroad, but only to investment in places and in industries that are consistent with India's view of how India should develop--but this leaves many fields open to foreign investment. (One should remember that France's policy was much the same until the 1970s.) Second, India has a very strong preference for joint ventures. Third, India insists that foreign firms investing in India train and promote Indian nationals in sufficient numbers and sufficiently rapidly that the foreign firms' Indian operations can be successfully and efficiently managed by Indian nationals within about ten years.

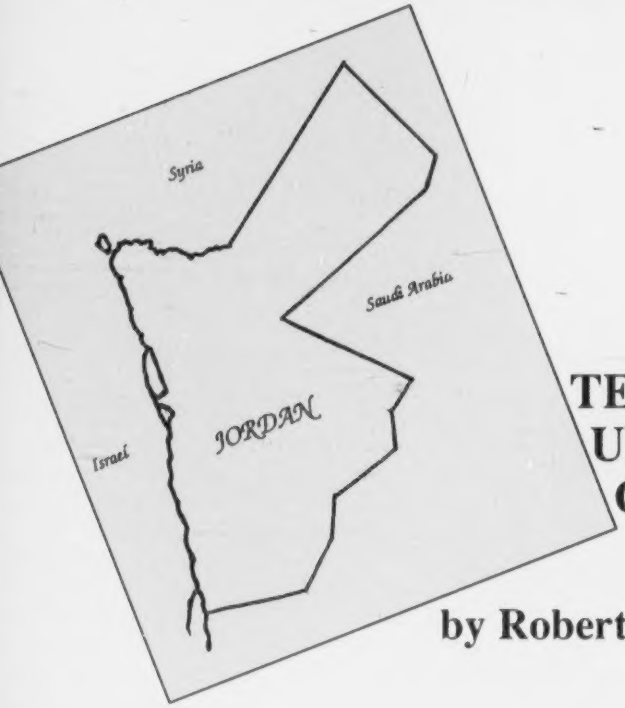
India does insist upon what Indians consider reasonable terms for foreign investment, terms that many other people also consider reasonable. There have been conflicts with foreign investors. One important and illustrative case comes to mind. In the 1960s, India refused to allow the Bechtol Corporation to build fertilizer plants in India. The reasons seem quite sensible: Bechtol wanted to amortize and repatriate its entire investment within five years of the opening of the plants, and meanwhile to have an open license to import fertilizers into India in order to develop the market for them. India, understandably, took the view that five years was entirely too short a time; and that there was no way her balance of payments could withstand an open license for the importation of fertilizers because, far from a need to develop the market, there was already, for practical purposes, what could be called an unlimited demand. The lesson was pretty clear: foreign investors should not ask for better terms than they might expect to get in the U.S. or France.

Population. India will have a billion people by the year 2000. So far population growth has not prevented economic development, although development would certainly have been faster if the population had grown more slowly. India will be able to feed a billion or more people. However, in a decade or two population pressure will present increasing problems--not only economic strains, but also growing social tensions and political instability.

The falling birth rate has been matched by falling infant mortality for 40 years. In the near future there will be further declines in infant and other mortality rates, so India should already be making much greater and more effective efforts to reduce the birth rate. If India does not yet need to adopt the Chinese policy of one child per family, it is none too soon for her to adopt a policy of two or fewer children per family.

Of all the problems facing India, her growing population is the most threatening and the most difficult to solve. If she can solve it, she can solve all her other problems; if she fails to solve it, her other problems will also become intractable in 20 or 30 years.

But for the present, India's economy is one that Americans should take seriously: as a growing competitor, as a market, and as a place to invest. ■



TENNESSEE AND YARMOUK UNIVERSITIES: CULTURES IN CONTRAST

by Robert C. Maddox

When the UT College of Business Administration began its faculty exchange with Yarmouk University in Irbid, Jordan in the spring semester, 1989, Bob Maddox, Associate Professor of Management, became the first Exchange Professor of Management in the program. He has also done research in Mexico and Guatemala and other Latin American and Central American countries, writing principally on cross-cultural issues dealing with transference of managerial skills.

Behavior at any institution is a product of a complex system of the cultural, social, political, economic and technological forces of its society. These forces are all reflected in the organizations found in that society and in the behaviors within those organizations. Thus it was interesting for me to make comparisons of the cultural forces at two different universities where I taught in a single year--The University of Tennessee, Knoxville, and Yarmouk University in the Hashemite Kingdom of Jordan. This article reflects a few observations and impressions from my stay in Jordan as a basis for comparison with UT, a typical American university.

Objective Differences

For a better appreciation of the behavioral differences among students and faculty of the two universities, some relevant factual differences should be noted.

- UT -- 25,000 students from each of the 50 states and more than 90 foreign countries. A fairly heterogeneous background, although most are from Tennessee.
- YU -- 12,000 students from a more homogeneous cultural background, with most of the foreign students coming from the Middle East.
- UT -- Students are taught in their native language of English.

Those who do not speak English as their first language must achieve a very high score on the TOEFL (Test of English as a Foreign Language).

- YU -- All of the students are taught and study in a foreign language (English) and there exists a wide range of capabilities in using that language.
- UT -- It is an old school, founded over 200 years ago, with a reference of tradition and a stable operation.
- YU -- It is a new school, founded only 13 years ago, and has undergone dramatic changes stemming from political and social forces.

Academic Competition

We as faculty want students first to be seekers of knowledge, whereas students often are first seekers of grades. In both the U.S. and Jordan, students tend to be grade-oriented. But this is a condition of our own doing, since it is by grades that we decide on the distribution of desired rewards. So we shouldn't be surprised if grades become the first priority of the students at both schools, despite the culture of origin.

Student/Faculty Relations

There are also numerous differences between UT and Yarmouk, particularly in the student/faculty relationship. Faculty at Yarmouk are generally viewed as being the final authorities in their fields. If they make a statement, it tends to be accepted almost without question. At UT, a pronouncement by a professor is more likely to be questioned and the professor asked to explain and defend his or her position.

My first reaction to this situation was to assume that there was greater respect for faculty at Yarmouk, but then I realized that students at YU are taught more by the lecture method than are American students. (Students there speak of having a "lecture" at 3:00; whereas at UT, they would say that they have a "class" at 3:00.) If students are conditioned to receive material unidirectionally in a lecture, to absorb that material and to demonstrate on a test the degree to which they possess it, they will tend to accept it without question. In contrast, at UT, faculty are more inclined (where class size permits) to add to the lecture method of teaching a strong emphasis on student discussion, student interpretation, case analysis, experiential exercises, and other methods which actively involve student participation. In short, it is more a multidirectional than unidirectional approach. Exams often ask for a student's analysis or interpretation of a set of facts rather than for the facts themselves. Given this conditioning, students will be more inclined to question a professor's statements and offer their own interpretation of a situation than to accept the statements at face value.

One result of these two approaches is that we seem to be developing different knowledge and skill bases in our two student bodies. While one approach fosters the acquisition and retention of information, the other focuses on the development of analytical thought processes. Why this difference in teaching approaches? First, the more tradition-based culture of the Middle East would tend to encourage a more traditional approach to education (i.e., the lecture method). However, in the U.S., the approach has evolved into a contingency-based approach where right and wrong are contingent upon conditions, situations, and values subject to differing interpretations and views.

A second reason for the difference in teaching approaches -- the situation -- could well argue for the appropriateness of these two approaches in their unique

circumstances. The dominant factor in the situation seems to be language-based. At UT students are given reading assignments which serve as the basis for class discussion. At Yarmouk, however, the students are reading in a second language and some are not highly competent in that language. In a recent survey of students there, 61 percent said they had *some* difficulty reading English, and 5 percent said that they had *much* difficulty.The problem is compounded with their English language textbooks whose examples concern companies and situations familiar to Americans but unknown to Jordanian students. Two situations result from these problems. First, reading assignments must be shorter for students with a limited command of English (and even then, comprehension is not guaranteed), and instructors must use class time to explain the assigned material, leaving little or no time for student discussion and interpretation.

An additional difference in classroom behavior is seen in the inclination to criticize publicly. At UT, students and faculty are inclined to criticize anyone and anything at any time. At Yarmouk, however, students and faculty seem more reluctant to be critical of Jordanian institutions, practices, policies, etc. in the classroom or in front of others. They are much more open and candid, however, when talking in private conversations. This seems to be not so much because of an adherence to traditional rather than contingency-based views as because of a surmised official intolerance of dissent. The U.S. cultural quality which sees value in openly expressed dissent is not universal.

Interpersonal Behaviors

Students at YU are extremely polite, courteous, and respectful of faculty, whereas at UT there is more of an egalitarian relationship between students and faculty. Student/faculty relationships at UT are also more impersonal, with little social interaction between the two groups. Office visits are used to conduct business. At Yarmouk, office visits are often social in nature and seem to be designed to develop or maintain a personal relationship. There are social events which include both faculty and students and seem to also be designed to foster such personal relationships, e.g., day-long picnics or overnight "field trips" to resorts on university buses which carry both faculty and students. Students are hospitable to the point of inviting faculty to their homes to meet their families, something that typically would not occur in the less personal relationships that exist in American universities. However, this behavior is typical of the culturally supported hospitality and friendliness of Jordanians.

Organizational Behaviors

A second distinction between Jordanian and American students is that of due process vs. intervention. This seems to be related to the independence-egalitarian vs. dependence-authoritarian differences in the two cultures. While they are both basically bureaucratic, the nature of the bureaucracy is different.

Bureaucracy at UT seems to be a combination of a machine bureaucracy and a professional bureaucracy. It is a machine bureaucracy in that there is a high degree of formalization of behavior, with rules and regulations that govern the administrative processes. But it is still a professional bureaucracy in that the operating core, the faculty, is relatively free from administrative control in the performance of their professional functions. In such a system, the administration exerts little control over the faculty in the performance of their duties, and in-

dividual faculty members have little influence on the system. If someone needs something from the system, he or she resorts to due process, an established and impartial procedure for interacting with the system.

Yarmouk, on the other hand, appears to have a similar combination of the machine and professional bureaucracies, with a strong modifying dose of simple structure thrown in. At Yarmouk there is the additional element of higher authority intervention in dealing with the system. Where authority at UT is tightly constrained by rules and regulations, at Yarmouk authority seems to reside more in the person than the position and is constrained by the limit of that person's power or influence. Thus, an individual is inclined to appeal to a person with authority to intervene in the system on his or her behalf. Or, if no one in authority is known, help is solicited from a mutual friend who can appeal to the authority. This attitude supports the argument for the attention given to building and maintaining interpersonal relationships.

A Personal Culture

Why is there a simple structure overlay at Yarmouk? The answer seems to be partly a product of the culture, partly a product of the environment, and partly a product of the organization, probably in that order. It is cultural to the degree that authority in the Arab culture tends to be more personal than positional. It is environmentally determined to the degree that the environment is very dynamic and the rules cannot organizationally be changed fast enough or often enough to adjust for changing circumstances. And, third, it is organizationally determined in that old organizations stabilize their behaviors over time and can rely on rules and regulations, while younger institutions such as Yarmouk are still in a state of growth and find it necessary to override ineffectual rules and procedures.

The last distinction to be considered is what I would term institutional paternalism. There seems to be a greater support of and involvement with the total individual (not just the working individual) at Yarmouk than at Tennessee. For example, housing is provided for university faculty at modest rents; model primary and secondary schools are located on campus for the education of employees' children; a university mosque is available to meet religious needs; and loans are made available on easy terms. Why does paternalism exist at Yarmouk and not at Tennessee? Historically, when necessary services such as these have not been available in a society, organizations have been inclined to provide them for their employees. When Yarmouk was founded in the northern Jordanian town of Irbid thirteen years ago, many of these services were either not available or not in close enough proximity to the university to satisfy the needs of employees. Yarmouk, in order to attract faculty, found it necessary to provide the services lacking in the community.

Conclusion

The University of Tennessee and Yarmouk University are two institutions that differ from each other on almost any basis on which organizations can be compared. Yet, they are alike in that each maintains a consistency with its environment and unique situation. While each organization could, and undoubtedly will, benefit from future change, this change must maintain an environmental and situational fit. ■

Belgium
Federal Republic of Germany
LUXEMBOURG
France

IF IT'S MONDAY, IT MUST BE LUXEMBOURG

by John J. Kirchenstein and John R. Moore

Since 1979, over 200 students and businessmen and women have participated in CBA's international European business study tours, John Kirchenstein, who conceived the idea when he retired from the military, first established ties between UT and various European businesses. He has organized seven European tours. John R. Moore, Professor of Economics, has participated in three study tours. Under the auspices of The Ford Foundation he was also involved in a study of the coal industry in Germany and England from 1973-76.

DATE: Monday, May 29, 1989

TIME: 8:30 a.m.

PLACE: Chateau Munsbach in the village of Munsbach, Luxembourg

Imagine you have now been in Europe for 12 days, and today is to begin with a class in international economics here in a lovely, large, private chateau just a few miles from the city of Luxembourg. Now owned by the government of the Grand Duchy of Luxembourg, the chateau houses the Institute of Europe and has been leased for ten days to serve as one of several "bases" for the 1989 University of Tennessee College of Business Summer Semester in Europe.

The day will be a typical one: two hours of classroom work under the direction of a UTK faculty member and a lecture/discussion with the Managing Director of the Credit European Bank on the "Financial Center of Luxembourg" during the morning hours. In the afternoon the group will take the short train ride to the city for a discussion of the role of the European Investment Bank in helping meet the goals of "Europe 1992," followed by similar discussions at the Statistical Office of the European Economic Community.

Late afternoon and evening will be free for some sightseeing and sampling of the local cuisine--and then back to the Chateau for study and discussion of the day's events with the staff and fellow students.

Background and Rationale

As part of the world community, the United States for many years has been a leader in business and industry. Because it was well endowed with natural resources and a large internal market, the U.S. did not consider contact with the international market an especially high priority. But with ever increasing intensity, international business relations have gained in significance over the past four decades. Mirroring the trend, academic coursework in the leading business schools of the nation over the past few years has incorporated an "international" curricula. UT's College of Business Administration has been no exception.

The First Year

In 1979, the College took a significant ancillary step by introducing an international travel experience dimension into its academic program. A three-week study tour of Europe was offered during the September break between the summer and fall quarters. The concept of the tour was to provide the participants with an opportunity to become familiar with selected European private and government organizations, emphasizing those engaged in internationally oriented business activities. It was not intended to be a sightseeing expedition, and a dress code was prescribed.

From 1979 to 1987, six European Business Study Tours were conducted. The average duration was 26 days. A typical three-week study tour groups, comprised of two faculty members and 30 students, visited about 17 business firms or activities in six or seven countries. Participants could earn academic credit in several disciplines by completing certain requirements. They included researching a topic related to the individual's field of interest and reflective of an international aspect. An in-depth paper was required at the end of the tour as well as a journal recording observations and comments about the foreign experience. The price of the first study tour in 1979 was $1,200. By 1987, the price had reached $2,900 because of inflation and the depreciation of the dollar. The tour prices included all transportation to, from, and within Europe (including an individual first-class Eurail pass), lodgings, all breakfasts and some other meals.

The 1989 Experience

With the change in the academic calendar from the quarter to a semester system, it was not possible to schedule a meaningful study tour during the short intervening breaks between spring and summer semesters or summer and fall semesters. The alternative was to use either the first or second term (of about six weeks duration each) of the summer semester. The first summer term, beginning in mid-May and ending in the third week in June, was chosen because it was a period before the July-August European business vacation period. Inasmuch as the study tour concept was heavily dependent upon visits with commercial and business entities, the May-June period also would find the executives and their activities in full operation.

The first "University of Tennessee European Business Summer Semester" took place from May 14 to June 23, 1989. The 1989 program differed from the previous six study tours in three ways: it was nearly six weeks in duration; formal classroom participation had been added; and the cost of $2,500 was significantly lower, when compared with the earlier, shorter tours.

The Summer Semester began with a four-day orientation period on the Knoxville campus. Introductory sessions were held pertaining to international economics and international management, the two courses which would be given during the stay in Europe. Also presented during the orientation were German and French language and culture introductions, and overviews of the geographic and political makeup of the European Community.

During the five-and-a-half weeks in Europe, formal classroom instruction in the international economics and management courses was completed, including a final examination which was given in a banquet room of the famous Train Bleu Restaurant in Paris. Supplemental to the six-semester credit hour coursework were visits with European business or government activities which afforded opportunities to discuss management techniques, government policies, and the issues of the Europe 1992 economic integration initiative. The 28 European activities visited during the 1989 summer semester are highlighted in Figure 1.

The $2,500 price for the six-week experience was accomplished by using reasonably priced accommodations primarily in college and government facilities. They included Regent's College in London; the Institute for Europe in Luxembourg; the guest house of the Stuttgart, Germany, Athletic Club; the International Center in Valbonne, France, and business-class level hotels in Brussels, Bremen, and Paris.

Internationalizing the Business Education

The accommodations provided over the years have been in well-known European cities such as London, Brussels, Rotterdam, Luxembourg, Bremen, Stuttgart, Zurich, Venice, Antibes, and Paris. The 1989 Summer Semester visited the United Kingdom, Belgium, Luxembourg, the Federal Republic of Germany, and France. Previous study tours also included Italy, Switzerland, and the Netherlands.

During the eleven-year period from 1979 to 1989, over 180 students have participated in the College's international European business orientation. Additionally, over the years, 20 business persons and other non-credit seeking individuals also have participated. Almost without exception, all participants have remarked that the experience broadened their business education and provided an invaluable cultural experience. A 1983 study tour participant, Ralph Volpe, currently a researcher with UT's Transportation Center, summed up his experience as follows: "Before the European Study Tour experience, much of the time I had spent earning my undergraduate degree was devoted to a one-sided domestic view of businesses, cultures, and people. Not only did the study tour encourage me to think global, it introduced me to a more realistic approach on both domestic and international political, environmental, and economic issues. My thinking was unbelievably broadened!"

Specifically commenting on the business visits, Jeff Russell, a 1984 trip member, and now President of Specialized Transportation of Nashville, said, "Because I came from a small rural community, the tour gave me the rare opportunity to meet corporate executives and thereby build up my confidence." Similarly, C.J. Pinajian, 1980 participant and sales executive with ATL International in Atlanta, found that the study tour experience was the spark that sent him into the trans-Atlantic business arena.

"It seems like it was just yesterday when we arrived at Regent's College in London. We have gained a great deal of knowledge, especially about Europe 1992," said an undergraduate student of the most recent trip, "but the most important aspect may have been our many experiences in learning about foreign cultures. We have gained an understanding of how people from different cultures and backgrounds think, and it is obvious that even when countries are as close together as they are in Europe, the people in each country are unique. To work with them, you must be prepared to adapt."

From the sampling of student reaction, it is clear that this program has been successful. For these students, at least internationalization of the curriculum has been a reality. But are there other benefits as well? The answer is clearly "yes." Six faculty members representing the diverse fields of marketing, management, economics, finance and transportation and logistics have been introduced to European cultures and business practices. These experiences have no doubt been reflected in classroom lectures and discussions for the benefit of the many students unable to participate in the tour itself. Furthermore, the tour has generated many contacts in the European Community, giving rise to campus visits and lectures by our European friends and entre to overseas firms, government organizations, and academic units for the benefit of The University of Tennessee students and staff.■

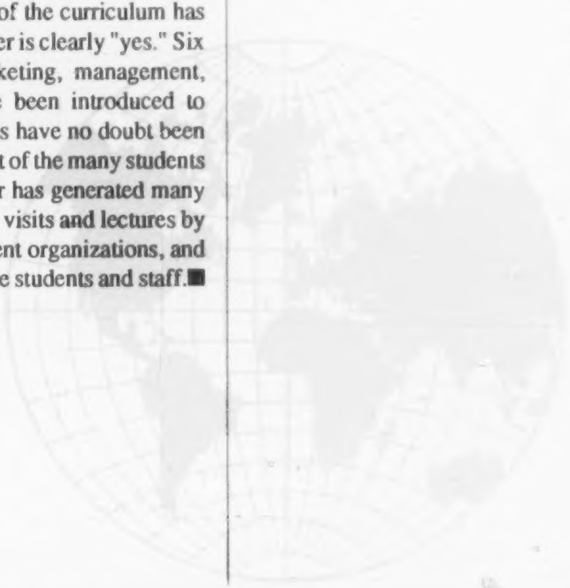


FIGURE 1
Businesses and Institutions Visited, 1979 - 1989
(1989 activities visited are in bold print)

American Embassy (London)	**United Kingdom**
Antwerp Diamond Center	Belgium
Baden Wuerttemberg Chamber of Commerce (IHK)	**Federal Republic of Germany**
Beck and Co.	**Federal Republic of Germany**
Brasserie Nationale	**Luxembourg**
Brasseries Ruenis	Luxembourg
Bremen Chamber of Commerce	**Federal Republic of Germany**
Bremen Fruit Exchange	Federal Republic of Germany
Bremen Tobacco Consortium	Federal Republic of Germany
Bremen Lagerhaus Gesellschaft (port)	**Federal Republic of Germany**
Breuninger Dept. Store	Federal Republic of Germany
Bristol Meyers Ltd. (UK)	United Kingdom
British Coal Corporation	**United Kingdom**
British Railways Board	**United Kingdom**
Carnation Milk (Netherlands)	Netherlands
Commission of the European Communities	**Belgium**
Crédit Européen Bank	**Luxembourg**
Crédit Suisse Bank	Switzerland
Daimler-Benz (Mercedes)	**Federal Republic of Germany**
Eduscho Coffee	**Federal Republic of Germany**
European Container Terminus (port)	Netherlands
European Investment Bank	**Luxembourg**
European Statistical Office (Eurostat)	**Luxembourg**
Exelvision	**France**
Ford (Netherlands)	Netherlands
French National Railroads (SNCF)	**France**
Galeries Lafayette Dept. Store	**France**
Grand Duchy of Luxembourg Chamber of Commerce	**Luxembourg**
German Federal Railroad (DB)	Federal Republic of Germany
Givenchy	France
Grindleys Bank	United Kingdom
Karstadt Dept. Store	**Federal Republic of Germany**
Kodak (Germany)	**Federal Republic of Germany**
Lindt and Spruengli Chocolates	Switzerland
Lloyds Bank	United Kingdom
Lloyds of London	**United Kingdom**
Luxembourg Vintners Association	Luxembourg
Lyon Chamber of Commerce	France
Moet Hennessy/Louis Vuitton	France
Monsanto (Europe)	Belgium
National Westminster Bank	**United Kingdom**
NATO	**Belgium**
OBA Group BV (port)	Netherlands
Paris Transport Authority (RATP)	France
Phillips	**Belgium**
Printemps Department Store	France
Proctor and Gamble (Belgium)	Belgium
Rotterdam Newspaper Guild	Netherlands
Rotterdam Port	Netherlands
Sea-Land Service	**Netherlands/FRG**
Siemens	**Fed. Rep. of Germany**
Swiss Cheese Association	Switzerland
Swiss Federal Railways (SBB)	Switzerland
Texas Instruments (France)	**France**
Villeroy & Boch	**Luxembourg**
Wienerwald Gmbh (Germany)	Federal Republic of Germany
WMF Cutlery	Federal Republic of Germany

INFLUENCE OF THE INTERNATIONAL SECTOR ON THE TENNESSEE ECONOMY

by Matthew N. Murray

Matt Murray, Assistant Professor of Economics and Research Assistant Professor, Center for Business and Economic Research, participated in a major study on tax reform in Jamaica in 1986 which was funded by the U.S. Agency for International Development. Recently he has been doing research on how the international economy influences economic development in Tennessee. For the forthcoming Outlook issue of the ***Survey*** *(January 1990) he is authoring a study of the European Community, 1992, and its implications for Tennessee.*

In addition to the increasing importance of international trade in goods and services, the international flow of capital has had an important effect on the U.S. and Tennessee. For example, capital inflows have supported the financing of domestic debt; employment of foreign-owned affiliates in Tennessee accounted for 78,028 jobs in 1986; and the U.S.'s net investment abroad has been negative since 1985. In addition, since the second quarter of 1988, investment income outflows from the U.S. have exceeded investment income inflows.

Because of the importance of the international sector to both the U.S. and Tennessee economies, this article explores international linkages in greater detail. Although the focus is on international activity and the implications for Tennessee, numerous comparisons and references to the U.S. are made. (Further insights into the national implications of international trade can be found in the *Tennessee Survey of Business*, Spring 1988, *An Economic Report to the Governor*, January 1989, and in the Winter 1990 Economic Outlook edition of the *Survey*.

Foreign Direct Investment

Capital flows between members of the international community are summarized annually in the capital account of the balance of payments, and reflect changes in the U.S. asset position abroad as well as changes in the asset position of foreigners in the U.S. The remittance of profits generated from capital investments is recorded in the current account of the balance of payments.

An important dimension to the international flow of capital pertains to the composition of the capital itself. First, there is portfolio investment as reflected in the purchase of stocks, bonds, or other financial assets. An essential characteristic of this type of investment is that it need not entail direct foreign control over domestic activities. Second, there is foreign direct investment which entails the direct purchase and control of domestic physical assets. The accepted definition of foreign direct investment (FDI) is investment in a firm in which an individual foreign investor owns or controls, directly or indirectly, at least 10 percent of the voting securities. An example of the latter would be the acquisition of a U.S.-owned manufacturing plant by Canadian investors.

In this section, the discussion focuses on FDI in the U.S. and Tennessee. Recent trends in FDI are identified and pertinent implications are noted.

Recent Trends in Foreign Direct Investment

Foreign direct investment in the U.S. has increased significantly in the last decade. However, most growth--whether in terms of asset holdings or employment--was realized over the 1977 to 1981 period. During this time frame, the share of U.S. employment associated with the operation of foreign-owned affiliates increased from 1.8 percent to 3.2 percent. Between 1981 and 1986, this employment share increased by only 0.3 percentage points to 3.5 percent.

This economy-wide average masks significant industry-specific variations. For example, in the services sector there is minimal, although increasing, FDI. In 1986, employment of foreign-owned affiliates in services comprised only 1.1 percent of total U.S. service sector employment. In the manufacturing sector, the share of U.S. manufacturing employment related to the operation of foreign-owned enterprises increased from 3.8 percent in 1977 to 6.9 percent in 1981, and to 7.8 percent in 1986. In chemicals, 32 percent of all employment by 1986 was attributable to the operation of foreign-owned affiliates.

In recent years, large purchases and acquisitions have dominated FDI in the U.S. In fact, the actual number of foreign investments in the U.S. declined between 1985 and 1986 (preliminary). In addition, 80 percent of the investments made in 1986 were in the form of acquisitions of existing operations as opposed to the establishment of new facilities.

Moderated but sustained growth in FDI over the recent past has been attributed to a number of factors. First, dollar depreciation has lowered the cost of U.S. assets to many foreign investors in terms of their own currencies. In addition, dollar depreciation effectively lowers revenues when translated into the appreciating currency. FDI in the U.S., which allows for production in the U.S., also allows foreign investors to put both revenues and costs in dollar terms. Additional factors which have positively influenced the growth of FDI include trade barriers (e.g., import quotas on Japanese automobiles), large foreign holdings of dollars, increased protectionist sentiment and the continued U.S. expansion.

Foreign Direct Investment in Tennessee

One perspective on the extent of FDI in Tennessee is provided by Table 1, which reports the gross book value of property, plant and equipment of foreign-owned affiliates between 1977 and 1986. In 1986, the book value of FDI in Tennessee amounted to $5.2 billion and had increased at a compound annual growth rate of 16 percent since 1977. However, as was the case for the U.S. as a whole, much of this growth took place between 1977 and 1981 when the compound annual growth rate was nearly 30 percent. Since 1981, the growth rate in the book value of foreign holdings has narrowed to 11.1 percent. Relative to both the U.S. and the southeastern states, Tennessee lags behind in terms of this measure of aggregate FDI.

FDI in Tennessee is heavily dominated by Canada, Europe, and Japan, which together accounted for 93.9 percent of the book value of FDI in the state in 1986. Of total European FDI in Tennessee, 80 percent was attributable to five countries: France, West Germany, the Netherlands, the United Kingdom and Switzerland. Japanese investments of $1.0 billion (through 1986) accounted for 20.1 percent of total FDI. In terms of total assets, the Japanese presence in Tennessee does not seem that large, being dominated by both Europe and Canada. However, with the exception of Canada, no other single country surpasses Japan's level of FDI in Tennessee. In addition, in 1986 Tennessee could claim 4.7 percent of all Japanese FDI in the U.S., as opposed to 2.3 percent of Canadian FDI and 1.2 percent of total European FDI. The growth in Japanese FDI was dramatic between 1981 and 1986, growing at a 53.7 percent compound annual growth rate.

An alternative view of the role played by FDI in the Tennessee economy is in terms of employment. In Table 2, data on the employment of foreign-owned affiliates is presented for the 1977 to 1986 period. In 1986, there were 78,028 Tennessee employees working in foreign-owned affiliates, accounting for 4.0 percent of total state nonagricultural employment. This reflects significant growth since 1977, when 26,215 workers (or 1.6 percent of state nonagricultural employment) were employed in foreign-owned establishments. Tennessee's FDI employment compares favorably with the U.S. average and closely parallels the performance of the Southeast. Within the southeastern states, Tennessee ranks fourth in total FDI employment. Thus, while Tennessee has a lower-than-average share of FDI-related property, the state has a larger-than-average share of FDI-related employment.

Combined, Canada, Europe, and Japan accounted for 93.0 percent of foreign-related employment in the state, relative to a combined average of 88.6 percent for the U.S. in 1986. Employment by Canadian-owned affiliates in Tennessee was 17,882 in 1986 which represented 3.0 percent of total Canadian-affiliated employment in the U.S. and nearly 23 percent of all foreign-affiliated employment in the state. However, as indicated in Table 2, Canadian investment comprised 32.8 percent of all FDI in the state in the same year. European-related employment in Tennessee (46,585) has fallen sharply in relative importance since 1977, but accounts for 59.7 percent of foreign-affiliate employment in the state and represents 2.6 percent of total European-related employment across all states. Contrary to the case of Canada, Europe's share of FDI in Tennessee (41.0 percent in 1986) is surpassed by their share of foreign-related employment. The dominant European countries in terms of Tennessee employment levels in 1986 were, in descending

TABLE 1
Foreign Direct Investment in Tennessee: Gross Book Value of Property, Plant and Equipment (Millions of Dollars)

	All Countries' Investment			Canadian Investment		
					Tennessee	
Year	Average U.S.	Weighted Average for SE States[a]	TN	Average U.S.	Amount	Percent of Total
1977	$1,260	$1,434	$1,335	$ 219	$ 59	4.4
1978	1,521	1,735	1,576	266	54	3.5
1979	1,910	2,198	1,897	318	87	4.6
1980	2,412	2,926	2,208	437	159	7.2
1981	3,546	4,509	3,747	905	1,351	36.1
1982	4,250	5,352	4,514	1,082	1,412	31.3
1983	4,604	5,689	4,730	1,168	1,405	29.7
1984	5,084	6,153	4,465	1,223	1,439	32.2
1985	5,569	6,852	4,609	1,283	1,573	34.1
1986	5,993	7,072	5,182	1,371	1,699	32.8

	European Investment			Japanese Investment		
		Tennessee			Tennessee	
Year	Average U.S.	Amount	Percent of Total	Average U.S.	Amount	Percent of Total
1977	$ 910	$1,103	82.6	$ 51	$ 24	1.8
1978	1,093	1,418	90.0	66	45	2.9
1979	1,388	1,658	87.4	83	76	4.0
1980	1,703	1,892	85.7	100	87	3.9
1981	2,222	2,190	58.4	128	121	3.2
1982	2,597	2,289	50.7	164	573	12.7
1983	2,727	2,345	49.6	206	724	15.3
1984	2,960	1,996	44.7	293	793	17.8
1985	3,269	1,911	41.5	349	884	19.2
1986	3,349	2,126	41.0	421	1,040	20.1

Notes: All data are on a fiscal year basis, and pertain to nonbank affiliates. U.S. data include the Virgin Islands, Guam, American Samoa, U.S. offshore oil and gas sites and all other U.S. territories and possessions.
SE = Southeastern
[a] Weighted by each state's relative share of civilian nonagricultural employment.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, ***Foreign Direct Investment in the United States***, various years.

order, the United Kingdom (13,904), the Netherlands (9,057), and France (7,060).

Employment of Japanese-owned affiliates increased at a robust compound annual growth rate of 42.2 percent between 1978 and 1986, yielding total state employment of 7,952 in 1986. Japan's share of FDI in the state in 1986 (20.1) is nearly twice Japan's share of foreign-affiliated employment (10.2 percent). In this same year, Tennessee could boast 76 Japanese affiliates with employment accounting for 3.4 percent of Japanese-affiliated employment in the U.S. This placed Tennessee first in the Southeast, and seventh in the U.S.

Additional detail on FDI in Tennessee is provided by Table 3, where the employment of foreign-owned affiliates is identified by industry. (It is not possible to link country ownership with industry data.) A most striking feature of these data relates to the role of the manufacturing sector. Of 78,028 state jobs attributable to the operations of foreign-owned affiliates in 1986, 62 percent (or 48,415) were employed in the manufacturing sector. This surpasses the U.S. average for the share of FDI employment in manufacturing (47.2 percent) and is far in excess of the state's overall manufacturing orientation, wherein 25.4 percent of Tennessee's nonagricultural jobs were in manufacturing in 1986. Foreign-affiliated employment in manufacturing grew at a 2 percent compound annual rate between 1981 and 1986. However, over this same period total Tennessee employment in the manufacturing sector declined from 507,000 to 490,500. Growth in foreign-affiliated employment thus benefited significantly from acquisitions of existing establishments.

Foreign-affiliated employment in the trade sectors of the Tennessee economy was 22,992 in 1986, and represented 2.6 of all FDI-related trade employment in the U.S. Employment by foreign affiliates in trade--particularly retail trade--has grown rapidly since 1981, increasing (in total) at a 20 percent compound annual growth rate. The role of FDI in finance, insurance and real estate (FIRE) is quite small, with foreign-affiliate employment numbering 1,046 in 1986, and comprising only 1.1 percent of state FIRE employment. In part, this reflects federal restrictions on FDI in the FIRE sectors.

TABLE 2
Foreign Direct Investment in Tennessee:
Employment of Foreign-owned Affiliates

	Total			Canadian Affiliated Employment		
					Tennessee	
Year	Average U.S.	Weighted Average for SE States[a]	Tennessee	Average U.S.	Number	Percent of Total
1977	22,995	25,435	26,215	3,571	2,531	9.7
1978	26,979	29,810	30,381	4,173	2,956	9.7
1979	33,079	37,653	37,686	4,822	3,192	8.5
1980	38,376	46,807	44,063	5,472	3,951	9.0
1981	45,596	57,386	57,422	8,253	12,902	22.5
1982	46,190	59,034	58,959	8,592	12,410	21.0
1983	48,047	63,330	59,980	8,933	11,141	18.6
1984	51,213	70,029	63,202	9,569	11,551	18.3
1985	54,003	73,941	69,559	9,953	12,629	18.2
1986	55,934	78,844	78,028	11,368	17,882	22.9

	European Affiliated Employment			Japanese Affiliated Employment		
		Tennessee			Tennessee	
Year	Average U.S.	Number	Percent of Total	Average U.S.	Number	Percent of Total
1977	16,143	20,440	78.0	1,437	n.a.	n.a.
1978	19,122	24,461	80.5	1,696	475	1.6
1979	23,886	30,059	79.8	1,999	1,641	4.4
1980	27,870	36,099	81.9	2,175	1,564	3.5
1981	30,725	37,412	65.2	2,605	2,718	4.7
1982	30,950	39,143	66.4	2,639	3,926	6.7
1983	31,283	40,259	67.1	3,096	5,196	8.7
1984	32,748	40,711	64.4	3,585	5,708	9.0
1985	34,076	44,764	64.4	4,014	7,089	10.2
1986	34,124	46,585	59.7	4,083	7,952	10.2

Notes: All data are on a fiscal year basis, and pertain to nonbank affiliates. U.S. data include the Virgin Islands, Guam, American Samoa, U.S. offshore oil and gas sites and all other U.S. territories and possessions.
SE = Southeastern
[a] Weighted by each state's relative share of civilian nonagricultural employment.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, ***Foreign Direct Investment in the United States***, various years.

TABLE 3
Employment of Foreign-owned Affiliates
in Tennessee: by Industry

	MANUFACTURING					
Year	Total Mfg.	Food & Kindred	Chemicals	Primary Metals	Machinery	Other
1977	21,542	454	6,721	3,353	7,757	3,257
1978	25,503	590	7,035	4,701	8,780	4,397
1979	31,114	654	7,224	9,046	8,530	5,660
1980	33,178	856	8,048	8,174	10,877	5,223
1981	43,972	1,782	16,790	7,357	10,350	7,693
1982	42,730	1,551	14,895	7,019	11,328	7,937
1983	43,598	2,584	13,992	7,348	10,662	9,012
1984	43,151	2,721	14,026	7,269	11,239	7,896
1985	45,641	3,224	13,716	6,371	11,598	10,732
1986	48,415	2,938	13,417	6,124	15,051	10,885

	TRADE			
Year	Wholesale	Retail	FIRE[a]	Other[a]
1977	2,309	634	302	147
1978	1,946	678	267	1,103
1979	3,691	699	872	106
1980	3,870	3,557	945	1,609
1981	4,840	4,264	1,004	2,321
1982	5,685	5,660	1,161	2,713
1983	6,080	5,580	966	2,939
1984	6,545	6,438	898	5,892
1985	7,857	9,364	1,016	5,556
1986	9,061	13,931	1,046	5,431

[a] Finance (except banking), insurance and real estate
Source: U.S. Department of Commerce, Bureau of Economic Analysis, ***Foreign Direct Investment in the United States***, various years.

Is Foreign Direct Investment Good or Bad?

FDI has played an increasingly important role in both the state economy and the national economy. However, FDI is not without its critics.[1]

Opponents might question the quality, stability and earnings capacity of FDI-related employment. Concerns are frequently expressed over investment income outflows from the U.S. and the sale of U.S. assets to finance current consumption, both public and private. Critics may also express concern over the loss of control of strategic resources and purely nationalistic concerns over foreign ownership.

Proponents counter by pointing to the important role played by FDI in the creation of new jobs and the augmentation of worker earnings. Initial FDI and reinvested profits allow for important additions to the capital stock, facilitating productivity growth. Benefits may also accrue through the transfer of technology and important managerial skills.

Regardless of one's view of the appropriateness of FDI, it is a necessary form of investment. Unfortunately, the U.S. as a whole has insufficient savings to finance all of our current consumption. Therefore, we must rely on the sale of debt or assets through foreign investment.

Merchandise Trade

The international sector has become increasingly important to the health and vitality of both the U.S. economy and the Tennessee state economy. As illustrated by Figure 1, both exports from the U.S. and imports to the U.S. increased rapidly from 1980 to 1987. At the outset, it is important to recognize that a single state has no direct control over the level of international trade and is largely at the mercy of the national and international economies; the flow of imports to the U.S. and the flow of exports from the U.S. is determined largely by macroeconomic forces.

The level of imports is influenced by numerous factors: our domestic level of income, the prices of domestically produced substitutes for imported goods, the prices of the imports themselves, the exchange rate between the dollar and various foreign currencies, and the presence of various formal and informal trade barriers. Exports from the U.S. depend upon income levels in countries we export to, the prices of the exports themselves, exchange rates and trade barriers. Recent research indicates the importance of these factors. Between 1960 and 1982, incomes, prices and exchange rates are capable of explaining 95 percent of the variation in U.S. bilateral import and export trade.[2]

While macroeconomic factors help explain overall trade flows, the performance of individual states, regions, and industries depends upon regional cost differences, sectoral

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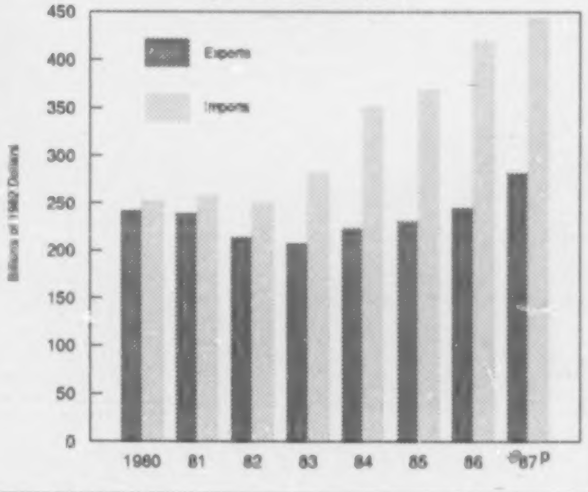
1. The pros and cons of FDI are addressed in more detail in *Costs and Benefits of Foreign Investment from a State Perspective*, Southern Center for International Studies, 1982.
2. Jeffrey H. Bergstrand, "The U.S. Trade Deficit: A Perspective from Selected Bilateral Trade Models," *New England Economic Review*, May/June 1987.

FIGURE 1
U.S. Merchandise Imports and Exports
(In 1982 Dollars)



p = preliminary
Source: *Economic Report of the President*, 1988.

productivity and other essentially microeconomic factors. Thus, states can play some role in influencing exports and imports by influencing productivity through education of the labor force, providing infrastructure to reduce transportation costs, etc.

The nature of U.S. bilateral trade is summarized in Figure 2, where the composition of U.S. international merchandise trade is illustrated for 1987. Western European nations purchase 27.6 percent of U.S. exports and supply 23.5 percent of imports to the U.S. In 1987, the bilateral trade deficit with respect to Western Europe was $27 billion. Larger bilateral trade deficits accrued between the U.S. and both Japan and the newly industrialized countries of Asia. Japan buys 11.1 percent of U.S. exports, and supplies 20.6 percent of total U.S. imports, producing a bilateral deficit of $57 billion in 1987. Although the margin is somewhat closer for the newly industrialized countries of Asia, nonetheless, in 1987 we realized a deficit of $35 billion.

Exports

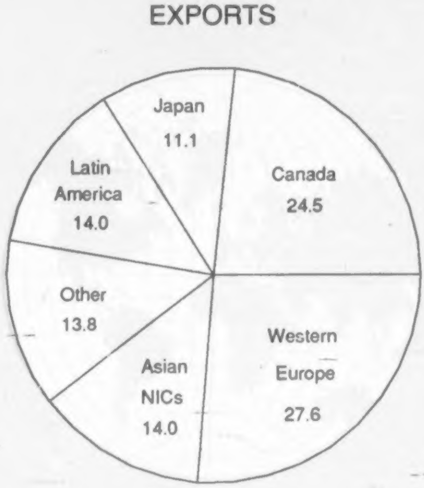
The early 1980s were not good years for the U.S. export sector. Between 1980 and 1983 exports declined by 14.2 percent in inflation-adjusted terms, and not until 1986 did merchandise exports return to 1980 levels. The poor performance of exports can be attributed largely to two factors. First, many countries that purchase our exports have experienced low rates of economic growth relative to the U.S., constraining their demand for U.S. products. Second, the dollar's appreciation between 1980 and 1985 relative to a host of foreign currencies effectively raised the cost of U.S.-produced goods to foreign consumers, further constraining export demand. These factors, which have induced anemic export performance, have been instrumental in establishing record trade deficits as implied by Figure 1.

Fortunately, the U.S. economy is not as dependent upon exports as are many other countries of the world. U.S. producers have chosen to focus on production for domestic consumption rather than production for export. The fundamental reason for the domestic focus of U.S. production activity is that the U.S. is the largest market in the world. In general, products need not be adapted or specially produced for interstate or interregional sale. However, production for export often entails special consideration for each country a firm may wish to export to. For example, automobiles may need to be adapted for driving on the left, and electrical products may have to be adapted for electrical voltage differences across countries.

One way to identify the role that exports play in influencing the U.S. and Tennessee economies is in terms of employment related to exports. The only detailed and consistent data series on exports relates solely to manufactured exports (which comprise the vast majority of all exports) and those nonmanufacturing sectors which provide inputs and services to export manufacturers. The most desirable aspect of this data series is the identification of exports by state of origin, so it is possible to identify manufactured exports and their employment implications for Tennessee.

Table 4 provides data on employment related to manufactured exports as a percent of civilian employment for the U.S., the southeastern states, and Tennessee. Data for the manufacturing sector include direct manufactured export employment, as well as indirect manufacturing employment

FIGURE 2
Percent Distribution of U.S. International Merchandise Trade: 1987



***Includes Republic of Korea, Hong Kong, Singapore, and Taiwan.**
Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, June 1988.

arising from the export industry's need for manufactured inputs. Nonmanufacturing employment, comprised of employment in the trade, business services, transportation, communications, utilities and "other" sectors, arises from the export industry's demand for inputs to the export production process.

As indicated by these data, the export orientation of manufacturing diminished in relative importance between 1980 and 1984, for the U.S., as well as for Tennessee and the Southeast. For example, in 1980, 5.1 percent of Tennessee's civilian employment was directly (in manufacturing) or indirectly (in manufacturing or nonmanufacturing) engaged in the production of manufactured exports. By 1984, due, in large part, to the macroeconomic phenomenon identified above, only 3.8 percent of all state jobs were attributable to manufactured exports. Table 4 reveals that this decline in manufacturing activity also impacted negatively on the nonmanufacturing sector as well, further highlighting the state's international linkages.

Another important feature of Table 4 relates to Tennessee's manufactured export intensity, as measured in terms of employment, vis-a-vis other states. By this measure, Tennessee has an average export intensity. While the state is average in this respect, it is important to point out that changes in overall export activity in the U.S. may impact differentially on different states because of variations in export intensity within specific sectors, changes in the composition of export trade, and variations in the economic orientation of the states.

Not only did Tennessee's export sector decline in relative importance between 1980 and 1984, but it declined in absolute terms as well. Illustrated in Table 5 are the levels of employment related to manufactured exports and the percent of each sector's total employment attributable to exports. In 1980, 94,100 Tennesseans were employed in manufactured export-related occupations, with 56,400 employed directly or indirectly in the manufacturing sector and an additional 37,700 employed indirectly in the nonmanufacturing sector. This closely matches the employment-weighted average for the southeastern states (not shown) which was 95,600 in 1980. (An employment weighted average is used to control for the different sizes of the various southeastern states.) In 1981, total employment in Tennessee related to manufactured exports increased by nearly 9 percent, to 102,500. However, by 1983--following a recession in 1982--employment had fallen off precipitously, to 71,500.

Table 5 also reveals variation in export intensity across key manufacturing sectors. In terms of absolute employment levels, the most important sectors in 1980 included chemicals (11,800), nonelectrical machinery (6,500), fabricated metals (5,700) and electric/electronic equipment (4,700). However, sector export intensity depends upon export-related employment as a percentage of total sector employment. On this basis, tobacco (46.1 percent), instruments (25.0 percent), chemicals (22.7 percent) and miscellaneous manufacturers (21.7 percent) were the most export-intensive sectors in 1980. For some sectors, export-related employment and export intensity were extremely small in 1980, indicating production primarily for domestic consumption. Included are leather, printing and publishing, and furniture and fixtures. Since these sectors do not produce extensively for export, their sensitivity to the international economy is in terms of import competition.

By 1984, most sectors had experienced reductions in export-related employment paralleling national trends. In fact, only three sectors--tobacco, printing and publishing, and furniture and fixtures--realized increased export-related employment levels in Tennessee between 1980 and 1984, although the increases were not large relative to state employment. Tobacco, printing and publishing, and fabricated metals were the only sectors to increase export intensity between 1980 and 1984. These trends clearly imply significant structural change in the export orientation of Tennessee manufacturing over the first half of the 1980s.

TABLE 4
Employment Related To Manufactured Exports as A Percent Of Civilian Employment

	Total			Manufacturing			Nonmanufacturing		
Year	U.S.[a]	SE[b]	TN	U.S.[a]	SE[b]	TN	U.S.[a]	SE[b]	TN
1980	5.0	5.6	5.1	2.9	3.1	3.1	2.0	2.5	2.1
1981	4.7	5.0	5.3	2.6	2.4	2.6	2.2	2.6	2.6
1982	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1983	3.7	3.8	3.6	2.0	1.9	2.0	1.7	1.9	1.6
1984	3.8	3.9	3.8	2.0	1.9	2.1	1.8	2.0	1.7

[a] Average for the 50 states.
[b] Calculated as an employment weighted average for the southeastern states.
n.a. not available

Source: U.S. Department of Commerce, Bureau of the Census, ***Annual Survey of Manufactures: Origin of Exports of Manufactured Products***, various years.

More recent data from this series on manufactured exports have yet to be released. However, such data would likely reveal substantial improvements in export performance since 1984. For the U.S. as a whole, exports increased by 56 percent in inflation-adjusted terms between 1983 and June of 1988, and most forecasters hold an optimistic view of future export performance (see below). The resurgence of exports is attributable to dollar depreciation since 1985, (which has, within the last year, benefitted metals production and the paper and chemicals industries in Tennessee), improved economic growth abroad, and cost cutting on the part of U.S. producers. In fact, cost cutting and international competition caused export prices to decline by 8.5 percent between 1984 and 1987; only in the first quarter of 1988 did export prices return to their 1983 levels.

Imports

Over the 1980 period, a variety of macroeconomic forces have worked in harmony to cause rapid growth in imports to the U.S. With the exception of 1980 and 1982, the 1980s have been a period of relative prosperity and sustained growth in the U.S. Inflation-adjusted per capita disposable income has increased at a 2.5 percent compound annual rate since 1982, in turn increasing the American consumer's penchant for goods produced abroad. The 1980 to 1985 period was characterized by significant apprecia-

TABLE 5
Tennessee Employment Related To Manufactured Exports: By Sector
(Thousands)

	1980		1981		1983		1984	
Industry	Number	As a Percent of Sector Employment	Number	As a Percent of Sector Employment	Number	As a Percent of Sector Employment	Number	As a Percent of Sector Employment
Manufacturing (total)	56.4	11.4	51.0	10.3	38.9	8.5	41.7	8.7
Food and kindred products	1.5	3.9	1.5	4.1	0.9	2.5	0.7	2.0
Tobacco products	0.6	46.1	0.4	28.5	0.2	16.7	0.8	57.1
Textile mill products	2.0	8.1	1.8	7.3	1.2	4.8	1.0	4.3
Apparel, other textiles	2.8	4.4	2.1	3.2	1.1	1.6	0.7	1.1
Lumber and wood	1.8	11.1	1.3	9.4	0.7	4.8	0.9	5.8
Furniture and fixtures	0.5	2.3	0.4	1.8	0.6	2.7	0.5	2.3
Paper and allied products	2.0	10.8	1.5	8.7	1.3	8.0	1.4	8.3
Printing and publishing	0.3	1.1	0.6	2.1	0.8	2.8	0.9	2.9
Chemicals, allied products	11.8	22.7	11.7	22.9	7.8	16.2	7.9	16.8
Petroleum and coal products	Z	Z	Z	Z	Z	Z	Z	Z
Rubber, miscellaneous plastics	2.3	10.5	2.1	9.6	2.2	11.5	1.9	9.4
Leather, leather products	0.3	1.7	0.3	1.7	0.3	2.2	0.2	1.7
Stone, clay and glass	1.6	12.9	1.4	11.1	1.1	8.2	1.1	8.0
Primary metals	3.6	19.9	3.3	19.1	2.7	19.6	2.8	19.9
Fabricated metals	5.7	16.2	5.5	16.6	5.0	16.5	7.0	21.5
Machinery, except electrical	6.5	18.7	6.1	16.8	4.1	15.3	4.9	13.5
Electric, electronic equipment	4.7	11.9	3.7	9.3	3.9	10.7	4.1	11.3
Transportation equipment	2.8	11.0	3.5	13.6	2.0	8.0	2.0	7.5
Instruments, related products	1.2	25.0	1.0	17.2	0.5	10.0	0.4	8.2
Miscellaneous manufactures	2.2	21.7	0.4	4.1	0.5	5.3	0.5	4.8
Administration, auxilliary	1.5	13.7	1.6	10.7	1.1	10.0	1.3	10.3
Nonmanufacturing (total)	37.7	--	51.5	--	32.6	--	36.0	--
Trade	12.4	--	22.7	--	15.2	--	16.2	--
Business services	7.5	--	13.3	--	3.2	--	3.8	--
Trans., comm., utilities	6.9	--	6.3	--	4.2	--	4.9	--
Other, including mining, agric.	10.9	--	9.2	--	9.9	--	11.1	--
Total	94.1	5.1[a]	102.5	5.3[a]	71.5	3.6[a]	77.7	3.8[a]

[a] Total export related employment as a percent of civilian employment

Z indicates less than half the unit shown.

Source: U.S. Department of Commerce, Bureau of the Census, ***Annual Survey of Manufactures: Origin of Exports of Manufactured Products***, various years.

tion of the dollar in international currency markets. Dollar appreciation had the effect of lowering the price of imports in dollar terms and increasing domestic demand for imports. Finally, as the dollar began to depreciate against certain major currencies after 1985, foreign suppliers kept price increases subdued by trimming profit margins in an effort to maintain market share.

The rising tide of imports to the U.S. has had a significant impact on the Tennessee economy. A considerable portion of the state's manufacturing activity is geared to the production of goods for domestic consumption. As such, imports to the U.S. compete both within the state and in other states against goods produced in Tennessee. There are positive and negative aspects associated with import competition. On the one hand, import competition may imply the loss of jobs and industry in Tennessee. On the other hand, consumers may benefit from lower prices (which allows consumers to increase expenditures on other activities) and a wider selection of consumables. In addition, domestic producers will be forced to become more efficient in order to survive in an increasingly integrated international community.

The increasing importance of imports was indicated above in terms of their negative influence on gross national product. Additional insights can be provided by focusing on imports and their contribution to total domestic consumption. In Table 6, import penetration ratios--defined as the ratio of imports to domestic consumption--are presented for key manufacturing sectors of the U.S. economy. These data reveal the significant inroads made by imports from all sources over the 1982-1987 period. Overall, import penetration to the manufacturing sector increased by 4.7 percentage points between 1982 and 1987. The domestic nondurable goods sector fared better than the domestic durable goods sector, experiencing only a 2.1 percentage point (or 37 percent) increase in import penetration relative to a 5.6 percentage point (or 47 percent) increase for durable goods. Only two major sectors--tobacco and primary metals--realized reduced import penetration, implying that U.S. producers of these commodities contributed a greater proportion of domestic consumption in 1987 than in 1982.

It is possible to identify some linkages between overall imports to the U.S. and economic activity in Tennessee. Between 1982 and 1987, the greater reductions in nondurable manufacturing jobs in Tennessee were in leather, chemicals, and textiles, where cumulative employment losses amounted to 44.0 percent, 23.0 percent, and 6.6 percent, respectively.[3] While these sectors were being battered at the state level, the U.S. as a whole was experiencing a significant increase in foreign competition in these same sectors. (See Table 6.)

Nondurable goods sectors, which fared the best over 1982 to 1987, included paper, printing and publishing, and rubber and plastics, where cumulative employment growth amounted to 8.9 percent, 20.0 percent, and 22.0 percent respectively. At the national level, Table 6 indicates that these sectors realized some of the smallest percentage point increases in import penetration. In addition, on an absolute scale, foreign competition--as measured by the import penetration ratios--is not as pronounced in these sectors relative to many other sectors.

Linkages between imports to the U.S. and Tennessee durable goods manufacturing activity are much more difficult to identify. At the national level, all durable sectors, with the exception of primary metals, witnessed increased import penetration between 1982 and 1987. At the state level, while all durable sectors realized positive output growth in inflation-adjusted terms, primary metals and electrical machinery experienced employment contraction. Thus, as import penetration to the primary metals sector diminished, Tennessee employment diminished in the same industry. In addition, the nonelectrical machinery industry--which had the second largest percent increase and the second largest percentage point increase in import penetration of any durables sector--experienced respectable employment growth of 15 percent, and significant inflation-adjusted output growth of 133 percent (the best of any durables sector) between 1982 and 1987.

Tennessee nondurable goods production is more sensitive to import competition than durable goods production. This conclusion is reinforced by the data in Table 5, wherein on average (for 1980) nondurable manufacturing was less export-intensive than durable manufacturing, implying a greater domestic focus to nondurable production.

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[3] It is important to note that, with the exception of chemicals--which experienced negative output growth of 24 percent--the remaining two sectors experienced positive rates of output growth over this same period, implying significant gains in productivity.

It is important to emphasize that national trends, as exemplified by Table 6, cannot fully explain the economic performance of individual states or regions within a state. One must not only understand the macroeconomic forces and trends identified above, but also understand state and industry-specific variations in productivity, production techniques, resource costs, etc. While macroeconomic forces may influence the overall level of imports, the impacts on specific regions and industries hinge on microeconomic forces as well.

Export-Import Outlook

The resurgence in export trade is forecast to continue well into the next decade, although there are concerns over short-run capacity constraints which may prevent output from expanding at a sufficient rate. Economic growth abroad and dollar depreciation should facilitate U.S. export performance. Wharton Econometric Forecasting Associates project inflation-adjusted growth in exports of 6.3 percent in 1989, 5.0 percent in 1990 and 4.6 percent in 1991.

Imports are expected to diminish in relative importance as a result of relatively slower domestic economic growth, dollar depreciation and higher import prices. However, over the short run, problems may remain. An important factor is the U.S. consumer's strong allegiance to many foreign-produced products and brands. Another limiting factor is that currency depreciation has not been uniform nor has it been consistent. Only recently has the dollar depreciated against the currencies of the newly industrialized countries of Asia: Korea, Taiwan, Singapore and Hong Kong. In addition, there have been periods of dollar appreciation as recently as 1988. There is evidence, though, that we have turned the corner. Historically, U.S. manufacturers have contributed approximately 80 percent of the production for each year's increase in domestic consumption. After falling off precipitously over the early 1980s, U.S. manufacturers once again contributed 78 percent to the increase in domestic consumption in 1987. The combined growth in exports and reduced growth in imports are forecast to produce a positive real net export position by 1997.[4] ■

TABLE 6
Import Penetration Ratios[a]
for the U.S. Manufacturing Sector

Industry	1982	1983	1984	1985	1986	1987
Nondurables	5.6	6.2	7.3	7.5	7.7	7.7
Food and kindred products	3.4	3.6	4.0	4.1	4.0	4.0
Tobacco	1.5	2.6	0.5	0.5	0.5	0.5
Textile mill products	4.6	4.7	6.0	6.5	7.2	7.9
Paper and allied products	6.6	6.6	7.6	7.7	7.4	7.7
Chemicals and allied products	4.8	5.4	6.4	6.8	7.0	7.0
Petroleum refining	7.2	8.5	10.3	9.5	9.3	9.5
Rubber and plastic products	5.3	5.6	6.2	6.4	7.2	7.7
Apparel and other textiles	13.8	15.4	19.8	21.9	25.4	27.4
Printing and publishing	0.8	0.9	1.0	1.1	1.2	1.3
Leather and leather products	32.8	36.1	43.5	48.8	54.1	54.9
Other nondurables	8.5	9.3	11.5	12.4	13.7	13.7
Durables	11.9	12.4	14.3	15.5	17.5	17.5
Stone, clay and glass	5.2	5.7	6.9	7.5	8.2	8.7
Electrical machinery	13.4	14.9	17.4	17.9	18.8	18.9
Transportation equipment	17.2	16.3	17.9	20.0	22.4	23.1
Scientific instruments	11.0	11.7	13.2	14.4	17.1	17.7
Lumber and wood products	7.1	8.4	8.5	9.0	8.3	8.2
Furniture and fixtures	5.4	6.5	7.7	9.5	11.1	11.6
Primary metal products	14.5	13.6	16.3	16.2	18.9	14.1
Fabricated metals	4.4	4.4	5.0	5.5	6.1	6.9
Non-electrical machinery	9.8	11.2	13.8	15.0	18.4	20.6
Misc. manufactures	22.4	23.4	26.9	31.0	34.6	37.1
Other durables	11.5	12.1	13.6	15.4	16.1	16.1
Total manufacturing	8.7	9.3	11.0	11.8	13.1	13.4

[a] Defined as the ratio of imports to domestic market, where domestic market is the sum of product shipments plus imports, minus exports.
Source: "Prospects," Feb. 5, 1988, Shearson Lehman Brothers, Inc.

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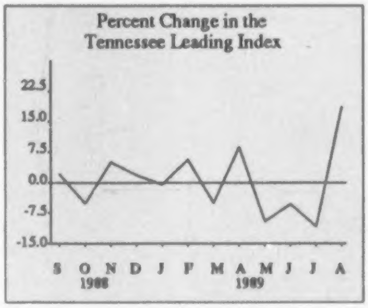
[4] Wharton Econometric Forecasting Associates.

TENNESSEE ECONOMIC OVERVIEW
(August Index as of October 23, 1989)

The Tennessee index of leading economic indicators increased sharply in August, abruptly reversing the trend of recent months. At a seasonally adjusted annual rate (SAAR), the index increased 18.6 percent as it grew from 112.5 in July to 114.1 in August. The strong August showing is encouraging, following consecutive decreases in the preceding three months, but is insufficient evidence to conclude that Tennessee's economy has renewed vigor. Several months of healthy growth are needed before an upward trend is established and the recent declines are reversed. One reason growth was so strong in August is that recent decreases left the index at a relatively low level, so that any increase appears large in percentage terms. Even after the August increase, the leading index was below the level attained in May and was only 0.2 percent above August 1988.

One very positive aspect of the strong August growth is that it was spread across all components of the leading index. Seasonally adjusted, real taxable mortgages in Tennessee increased by the third largest monthly amount on record. Real seasonally adjusted taxable sales increased as well, resulting in 2.4 percent growth since August 1988. This is the largest twelve-month increase in taxable sales since January 1989. Seasonally adjusted Tennessee construction starts and initial claims for regular unemployment insurance both showed strength as well. August construction starts were 3.7 percent above August 1988, the first twelve-month increase in four months. There were 900 fewer initial claims for unemployment insurance in August than in July, although initial claims remain high relative to the recent past. Finally, the U.S. leading index displayed its strongest growth since April, increasing by 4.3 percent at a SAAR.

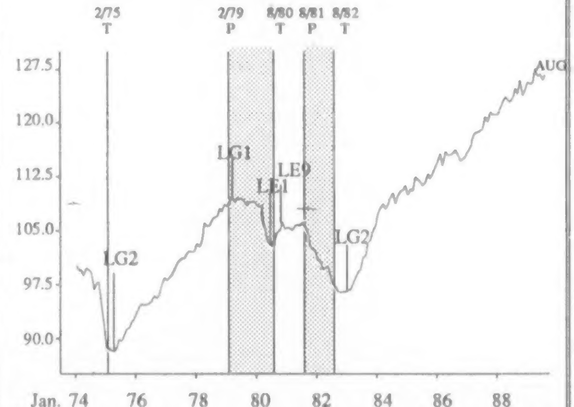


Tennessee's coincident index of economic indicators confirmed the overall health of Tennessee's economy in August, increasing by 6.1 percent at a SAAR. The index rose from 125.8 in July to 126.4 in August, but remains below the 127.3 level attained in April. While the coincident index has not displayed a negative trend lately, a succession of ups and downs leaves the August index only 1.4 percent above August 1988. Hence, while the growth displayed in August is promising, neither the leading nor coincident indices have established an upward trend.

All three components of the coincident index increased in August. Seasonally adjusted commercial and industrial electricity consumption grew, but the rate of growth was modest relative to recent declines, so that consumption is only 1.2 percent above August 1988. The Memphis help-wanted advertising index also increased modestly in August, but remained 6.7 percent below August 1988. The U.S. coincident index grew slightly faster than the U.S. leading index, registering 4.6 percent SAAR growth in August.

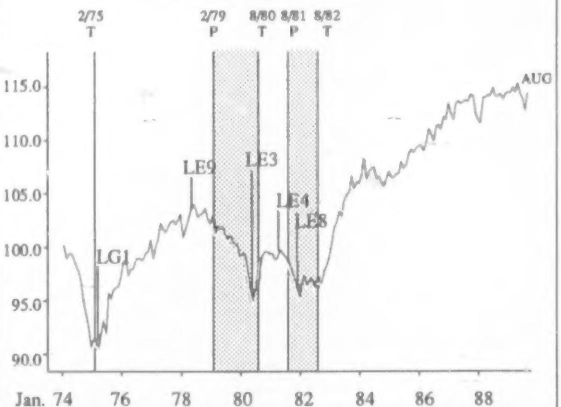
Another bright part of the August economic overview is renewed growth in nonagricultural employment. Tennessee nonagricultural employment increased at a 4.1 percent SAAR in August, the first substantial increase since January. With this increase, nonagricultural employment practically regained March's level, reversing the declines of April, May, June, and July. At the same time, U.S. nonagricultural employment grew by only 1 percent at a SAAR. Still, U.S. nonagricultural employment grew by 2.7 percent from August 1988 to August 1989, while Tennessee nonagricultural employment grew by only 0.9 percent over this same period. Hence, several months of healthy employment growth are needed before Tennessee regains all of the losses of recent months.

FIGURE 1
Coincident Index



NOTE: Lag and lead numbers represent the number of months between the peak or trough of the coincident index and the middle of the peak or trough quarter of the reference series index.
LG = lag; LE = lead
P = peak; T = trough

FIGURE 2
Leading Index



NOTE: Lag and lead numbers represent the number of months between the peak or trough of the leading index and the middle of the peak or trough quarter of the reference series index.
LG = lag; LE = lead
P = peak; T = trough

TENNESSEE ECONOMIC INDICATORS

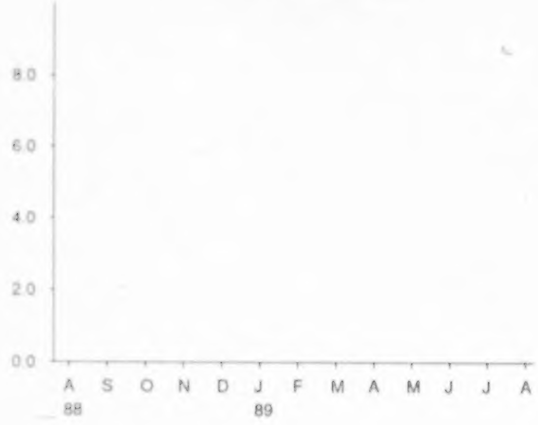
SEASONALLY ADJUSTED

	8/88	9/88	10/88	11/88	12/88	1/89	2/89	3/89	4/89	5/89	6/89	7/89	8/89	1986	1987	1988
US Personal Income (BIL 82 $) (1)	3440.5	3446.5	3483.7	3465.4	3484.9	3519.9	3543.5	3559.8	3558.1	3545.4	3556.8	3571.6	3587.3	3214.6	3321.8	3433.9
% Chg Prev Month SAAR	0.19	2.12	13.73	-6.11	6.97	12.71	8.36	5.65	-0.57	-4.19	3.91	5.14	5.39	4.05	3.33	3.38
% Chg Same Month Last Yr	3.61	3.47	2.87	2.89	2.12	4.20	4.48	4.39	4.07	3.72	3.73	3.83	4.27	4.05	3.33	3.38
US CPI,All Urban Consumers (1982-84=100)	119.0	119.5	120.0	120.3	120.7	121.4	121.9	122.5	123.3	124.0	124.2	124.5	124.5	109.7	113.7	118.3
% Chg Prev Month SAAR	4.12	5.16	5.14	3.04	4.06	7.19	5.06	6.07	8.12	7.03	1.95	2.94	0.00	1.92	3.66	4.08
% Chg Same Month Last Yr	4.02	4.28	4.35	4.25	4.41	4.57	4.82	4.97	5.20	5.35	5.17	4.97	4.62	1.92	3.66	4.08
TN Nonag Employment (THOU) (2)	2061.9	2062.3	2069.9	2084.1	2070.7	2086.6	2086.7	2081.1	2079.8	2077.5	2074.4	2074.1	2081.0	1929.8	2011.5	2065.9
% Chg Prev Month SAAR	-2.53	0.26	4.51	8.54	-7.46	9.63	0.08	-3.22	-0.72	-1.31	-1.80	-0.17	4.10	3.33	4.23	2.71
% Chg Same Month Last Yr	2.00	1.55	1.44	1.86	0.72	1.94	1.23	0.53	0.59	0.69	0.37	0.38	0.93	3.33	4.23	2.71
US Nonag Employment (MIL)	106.0	106.2	106.5	106.8	107.1	107.4	107.7	107.9	108.1	108.3	108.6	108.8	108.9	99.5	102.2	105.6
% Chg Prev Month SAAR	2.73	2.90	3.07	4.00	3.11	3.93	3.05	1.99	2.39	2.34	3.34	1.78	0.98	2.06	2.69	3.31
% Chg Same Month Last Yr	3.34	3.43	3.16	3.24	3.19	3.34	3.16	3.06	3.05	3.06	2.89	2.84	2.74	2.06	2.69	3.31
TN Unemployment Rate (%) (2)	5.7	5.8	5.8	5.6	5.8	6.3	5.5	5.6	5.3	5.6	5.0	4.8	4.8	8.0	6.6	5.8
US Unemployment Rate (%)	5.6	5.4	5.3	5.4	5.3	5.4	5.1	5.0	5.3	5.2	5.3	5.2	5.2	7.0	6.2	5.5
Bank Prime Interest Rate (%)	9.8	10.0	10.0	10.1	10.5	10.5	10.9	11.5	11.5	11.5	11.1	11.0	10.5	8.3	8.2	9.3
US Coincident Composite Index (1967=100)	129.3	129.3	130.6	130.6	131.4	132.3	132.6	132.6	133.4	133.1	133.4	133.4	133.9	118.8	122.7	128.6
% Chg Prev Month SAAR	3.79	0.00	12.76	0.00	7.60	8.54	2.76	0.00	7.48	-2.67	2.74	0.00	4.59	2.39	3.33	4.77
% Chg Same Month Last Yr	4.78	4.61	4.31	4.65	4.12	5.33	4.82	4.16	4.79	4.31	3.81	3.49	3.56	2.39	3.32	4.77
US Leading Composite Index (1967=100)	144.1	143.7	143.9	144.0	145.0	146.1	145.7	144.7	145.6	143.8	143.7	143.9	144.4	132.1	139.6	142.5
% Chg Prev Month SAAR	12.43	-3.28	1.68	0.84	8.66	9.49	-3.24	-7.93	7.72	-13.87	-0.83	1.68	4.25	6.53	5.65	2.12
% Chg Same Month Last Yr	0.84	0.84	1.48	3.37	4.47	5.34	3.85	2.77	2.90	1.63	-0.14	0.84	0.21	6.53	5.65	2.12
TN Coincident Composite Index (1/74=100)	124.6	123.8	125.7	123.6	124.4	125.5	125.2	125.4	127.3	126.4	126.6	125.8	126.4	115.1	119.0	123.3
% Chg Prev Month SAAR	12.90	-7.15	20.10	-18.57	8.24	10.86	-2.78	1.39	20.74	-8.51	1.94	-7.43	6.14	3.13	3.39	3.64
% Chg Same Month Last Yr	3.34	3.26	3.73	2.21	2.86	3.79	2.81	2.20	3.14	2.79	3.18	1.08	1.45	3.13	3.39	3.64
TN Leading Composite Index (1/74=100)	113.9	114.1	113.6	114.1	114.3	114.2	114.8	114.3	115.1	114.1	113.6	112.5	114.1	110.7	113.0	113.8
% Chg Prev Month SAAR	0.15	2.12	-5.13	5.14	1.81	-0.40	5.69	-4.95	8.79	-9.56	-5.33	-10.90	18.62	2.78	2.09	0.69
% Chg Same Month Last Yr	0.48	0.06	-0.24	1.65	2.79	2.55	0.85	0.45	0.94	0.17	-0.94	-1.22	0.18	2.78	2.09	0.69
TN Comm & Ind Elect Consumption (MIL KWH) (3)	2284	2277	2300	2231	2269	2250	2265	2249	2322	2296	2341	2277	2310	24320	25117	26789
% Chg Prev Month SAAR	22.77	-3.41	12.68	-30.55	22.30	-9.64	8.46	-8.30	46.50	-12.50	26.52	-28.34	19.02	3.67	3.28	6.65
% Chg Same Month Last Yr	7.69	6.44	7.41	2.20	4.81	3.74	2.72	2.76	4.34	4.10	6.94	1.43	1.16	3.67	3.28	6.65
Help Wanted Index,Memphis (1967=100) (4)	150	140	155	134	135	146	138	142	155	147	142	139	140	125	143	144
% Chg Prev Month SAAR	128.85	-56.30	239.19	-82.57	9.33	155.99	-49.15	40.90	186.10	-47.05	-33.98	-22.60	8.98	16.60	13.91	0.93
% Chg Same Month Last Yr	-4.46	-2.10	3.33	-6.29	-0.74	5.04	-1.43	-4.70	-0.64	-1.34	0.71	-0.71	-6.67	16.60	13.91	0.93
TN Mfg Employment (THOU) (2)	506.2	506.8	508.6	508.8	510.6	512.4	511.5	511.1	510.9	510.0	510.7	510.5	511.4	490.6	497.5	508.2
% Chg Prev Month SAAR	0.33	1.41	4.42	0.63	4.28	4.31	-2.25	-0.73	-0.61	-2.04	1.59	-0.46	2.08	-0.39	1.41	2.16
% Chg Same Month Last Yr	2.14	1.21	0.70	0.51	0.57	0.94	0.45	0.54	0.59	0.56	0.67	0.47	0.62	-0.39	1.41	2.16
US Mfg Employment (MIL)	19.4	19.4	19.5	19.6	19.6	19.6	19.6	19.7	19.7	19.7	19.6	19.6	19.6	19.0	19.0	19.4
% Chg Prev Month SAAR	-1.41	0.37	4.67	3.25	1.98	3.67	0.00	1.97	-0.49	-0.31	-1.03	-0.06	0.06	-1.53	0.31	1.99
% Chg Same Month Last Yr	1.90	1.73	1.86	1.82	1.80	2.04	1.95	2.04	1.79	1.62	1.29	1.03	1.16	-1.53	0.31	1.99
TN Mfg Avg Weekly Hours (2)	41.3	41.4	41.2	41.4	41.4	41.0	41.4	41.0	41.0	41.0	41.2	41.1	41.1	41.2	41.6	41.6
% Chg Prev Month SAAR	-3.64	3.41	-5.13	3.74	0.55	-9.29	11.59	-10.16	-1.27	-0.98	6.30	-1.10	-0.53	0.61	0.79	0.06
% Chg Same Month Last Yr	-0.94	1.21	-1.48	-1.74	1.41	-3.32	-0.75	-2.16	-1.89	-1.36	-1.15	-0.68	-0.42	0.67	0.79	0.06
TN Taxable Sales (MIL $) (5)	3279	3379	3212	3357	3458	3343	3354	3505	3400	3513	3436	3459	3513	35351	37571	398.3
% Chg Prev Month SAAR	-6.35	43.14	-45.51	70.10	42.82	-33.40	3.78	69.84	-28.29	41.24	-23.34	8.29	20.39	7.81	6.28	6.10
% Chg Same Month Last Yr	2.30	5.50	-1.98	8.27	5.91	7.34	0.22	5.48	2.63	5.41	0.91	4.91	7.13	7.81	6.28	6.10
TN Taxable Sales (MIL 82 $) (5)	2755	2827	2677	2791	2865	2754	2751	2861	2765	2833	2766	2778	2821	32226	33035	33651
% Chg Prev Month SAAR	-10.05	36.30	-48.19	65.08	37.24	-37.87	-1.21	60.12	-33.68	33.83	-24.81	5.20	20.39	5.78	2.51	1.86
% Chg Same Month Last Yr	-1.65	1.17	-6.07	3.86	1.44	2.65	-4.38	0.49	-2.45	0.05	-4.04	-0.06	2.40	5.78	2.51	1.86
Initial Claims For TN UI (THOU) (2)	40.1	35.0	36.1	39.3	30.8	35.5	33.4	33.2	30.5	38.3	40.5	46.8	45.9	511.0	437.6	415.3
% Chg Prev Month SAAR	1700.1	-80.5	42.3	176.1	-94.5	450.5	-52.7	-6.2	-64.6	1461.9	96.7	460.4	-20.9	-5.2	-14.4	-5.1
% Chg Same Month Last Yr	28.36	10.32	16.22	16.60	-28.92	-4.05	3.08	-4.20	-2.45	15.43	19.43	48.26	14.26	-5.20	-14.35	-5.10
Continued Weeks Claimed For TN UI (THOU) (2)	207.4	164.1	174.4	202.6	147.1	177.9	165.0	169.4	159.8	183.0	173.6	181.9	205.1	2304.1	2062.4	2068.2
% Chg Prev Month SAAR	3473.3	-94.0	106.9	506.9	-97.9	876.1	-56.8	28.0	-50.1	406.6	-46.3	73.6	321.5	-3.8	-10.5	0.3
% Chg Same Month Last Yr	20.22	-4.51	11.23	22.56	-11.42	6.32	-5.49	-5.00	0.54	7.74	3.12	18.17	-1.11	-3.79	-10.49	0.28
Total TN Construction Starts (6)	460.0	446.7	423.7	483.6	432.4	434.0	479.9	404.5	552.7	438.9	462.7	381.3	476.9	5250.6	5324.6	5279.3
% Chg Prev Month SAAR	437.6	-28.6	-47.0	389.0	-73.9	7.0	225.7	-87.1	4076.0	-93.6	88.3	-90.2	1364.2	-12.4	1.2	-0.9
% Chg Same Month Last Yr	38.57	3.34	-4.65	16.05	-2.20	32.90	9.27	-13.48	24.38	-5.52	-5.73	-4.62	3.69	-12.38	1.23	-0.85
Value Of TN Constrc Starts (MIL 82 $,NSA) (6)	460	325	394	294	337	278	226	279	380	395	406	296	415	4168	4408	4266
% Chg Prev Month SAAR	56.5	-98.5	922.1	-97.0	423.3	-90.3	-93.8	1655.7	3902.7	58.1	40.4	-97.8	6461.7	1.9	7.9	-5.1
% Chg Same Month Last Yr	62.36	-13.39	-11.40	-2.69	16.15	42.65	-16.82	18.25	-1.68	-10.08	4.99	-33.26	18.87	1.94	7.86	-5.12

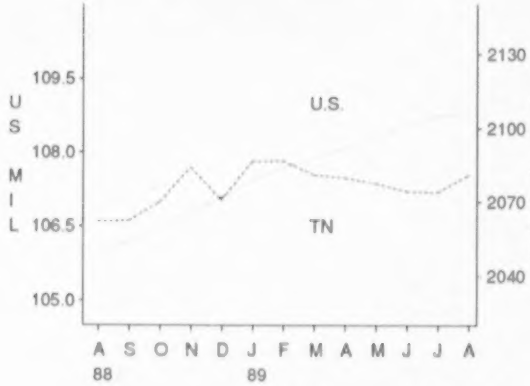
	86/II	86/III	86/IV	87/I	87/II	87/III	87/IV	88/I	88/II	88/III	88/IV	89/I	89/II	1986	1987	1988
US GNP (BIL 82 $) (1)	3704.6	3712.4	3733.6	3783.0	3823.5	3872.8	3935.6	3974.8	4010.7	4042.7	4069.4	4106.8	4132.5	3717.0	3853.7	4024.4
% Chg Prev Qtr SAAR	-1.76	0.84	2.30	5.40	4.35	5.26	6.65	4.04	3.66	3.23	2.67	3.73	2.53	2.74	3.65	4.43
% Chg Same Qtr Last Yr	2.93	2.11	1.94	1.66	3.21	4.32	5.41	5.07	4.90	4.39	3.40	3.37	3.04	2.74	3.65	4.43
TN Personal Income (MIL $) (1)	58956	58081	58987	60651	61615	62846	64977	64946	66436	67872	69718	71361	NA	57550	62522	67243
% Chg Prev Qtr SAAR	5.66	8.14	6.39	11.77	6.51	8.23	14.27	0.19	9.50	8.93	11.33	9.77	NA	7.30	8.64	7.55
% Chg Same Qtr Last Yr	6.81	8.07	7.18	7.96	8.18	8.20	10.15	7.08	7.82	8.00	7.30	9.88	NA	7.30	8.64	7.55
TN Personal Income (MIL 82 $) (1)	50182	50637	50939	51574	51690	52154	53347	53017	53621	54254	55113	55751	NA	50324	52192	54001
% Chg Prev Qtr SAAR	3.29	3.68	2.40	5.08	0.91	3.64	9.47	-2.45	4.63	4.81	6.48	4.71	NA	4.74	3.71	3.47
% Chg Same Qtr Last Yr	4.65	5.52	4.69	4.31	3.01	3.00	4.73	2.80	3.73	4.03	3.37	5.16	NA	4.74	3.71	3.47

1. Annual Rate
2. Calculated from data provided by the Tennessee Department of Employment Security
3. Source: Tennessee Valley Authority
4. Source: The Conference Board
5. Calculated from sales tax collections, provided by the Tennessee Department of Revenue
6. Source: F.W. Dodge Division of McGraw-Hill Information Services Company

Percent Change in the U.S.
Consumer Price Index
Seasonally Adjusted Annual Rate

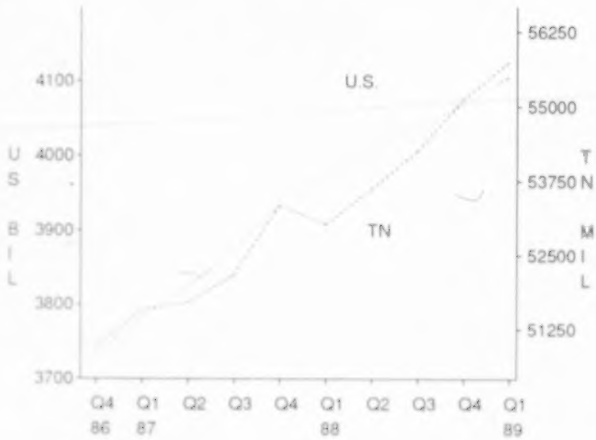


Total Nonagricultural Employment
Seasonally Adjusted

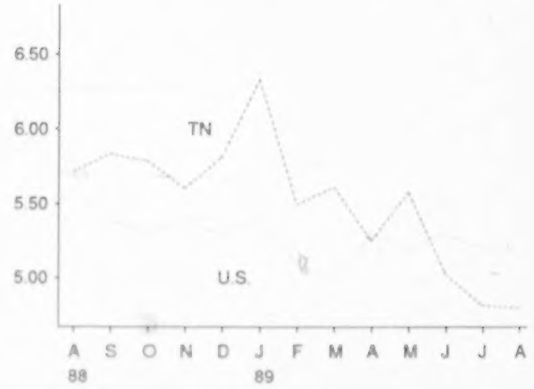


Note: Calculated from data provided by the Tennessee Department of Employment Security.

Real Personal Income
Seasonally Adjusted Annual Rate
1982 Dollars



Civilian Unemployment Rates
Seasonally Adjusted



Note: Calculated from data provided by the Tennessee Department of Employment Security.

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Winter 1990

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1990

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COMMENTS

The 21st annual Outlook issue of the *Survey* comes at a time when there is the greatest overall uncertainty since the end of World War II -- in the state, in the nation, and in the world. As the Soviet empire crumbles with astounding speed and -- surprisingly, but gratefully -- with so little bloodshed, we are left to ponder what will replace the cold war -- that negative sense of purpose that has provided political and economic impetus for both East and West for nearly 45 years. Some suggest that the end of the cold war should lead to a flowering of culture, a renaissance of humane concerns -- all the inestimable privileges of peace. While Americans become more accustomed to "change as the only constant," the symbols of change we must identify and understand have become global in origin. Tennesseans of the future must be prepared for the reality of world citizenship.

Present-day Tennesseans, Outlook panelists from 1989 and 1990, appear to be concerned about our ability to compete in that global marketplace. Last year, the 1989 Outlook Panel identified an increase in the quality of basic education as the State's most effective economic development policy alternative. This year, the 1990 Outlook Panel (listed on page 2) responded to a questionnaire designed to solicit panel opinion on Tennessee's tax structure and alternatives to fund an increase in basic education. Ken Quindry and Betty Vickers summarize panel responses on the economic outlook for 1990 and identify critical economic and social issues in the decade ahead, and Sandra Putnam and Eddie Moore present 1990 panelists' attitudes about health in the Tennessee workplace.

In "The U.S. Economic Outlook," John Mayo reviews the turbulent 80s -- the decade that produced "unprecedented swings in inflation, the deepest recession since the Great Depression, the U.S. shift from the largest creditor nation in the world to the largest creditor nation, a doubling of the national debt and the longest expansion since World War II." The background thus set, Tennessee Econometric Model project director Dave Mandy and CBER research director Bill Fox address the "Economic Outlook for Tennessee." The state short-term agriculture forecast was prepared by Burton English and Robert Goodman.

In "The European Community, 1992: Implications for Tennessee," CBER economist Matt Murray and economics doctoral student Carlos Martins-Filho describe the formation and future plan for the European common market. Issues considered include: Will Tennessee be able to export more to Western Europe, or will European producers accommodate any increased demand resulting from integration? Will EC investors choose to invest in Western Europe rather than in places like Tennessee?

As with the preceding 20 issues, this outlook edition is prepared for decision-makers in Tennessee as a summary of executive thought and economic research on major current issues, with the understanding that the most effective hedge against uncertainty is knowledge. We are grateful for the active support of every reader and especially thank the members of our 1990 Outlook Panel, the largest in our history.

David A. Hake
Director, CBER

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Dr. Hake is Director and Research Professor, CBER, and Editor, Survey of Business

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Dr. Quindry is Professor Emeritus and Consultant to CBER. Ms. Vickers is Research Associate, CBER. Dr. Hake is Director and Research Professor, CBER. Ms. Putnam is Director of the Health Services Research Center (HSRC), The University of Tennessee Medical Center at Knoxville (UTMCK). Eddie S. Moore, M.D., is Chairman [illegible] Advisory Committee and Professor and Chairman of Pediatrics at UTMCK.

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[illegible] essor, CBER, and Assistant Professor of Economics, UT. Dr. Fox is [illegible] fessor, CBER, and Professor of Economics, UT.

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Panelists for the 1990 Survey of Business Attitudes

* Norbert J. Ackermann, Jr., President, CONINCO, Inc., Knoxville

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* Charles E. Ashworth, General Manager, Continental Baking Co., Inc., Memphis

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Phillip J. Bass, Owner, Bass Manufacturing Company, Camden

† Thomas R. Bell, President, East Tennessee Natural Gas Company, Knoxville

* Susan Bies, Executive Vice President/CFO, First Tennessee National Corporation, Memphis

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Aaron A. Blanton, Plant Manager, General Metal Products Company, Humboldt

† John C. Bolinger, Jr., Vice Chairman, Piedmont Natural Gas, Co., Nashville

* Stephen J. Boyer, President, Tennessee Retail Federation, Nashville

James A. Breaux, President and General Manager, Bowater Incorporated Southern Division, Calhoun

* Berry Brooks, Senior Vice President, Sovran Bank/Central South, Nashville

Curtis Brown, Operations Manager, Emerson Electric Company Special Products Division, Paris

James K. Buchanan, Division Manager, Scrivner, Pay Cash Division, Knoxville

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Jimmy D. Cagle, Public Relations Manager, Goodyear Tire and Rubber Co., Union City

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* Ralph D. Carnathan, Senior Business Development Manager, Lockwood Greene Engineers, Inc., Oak Ridge

† William R. Carter, President, Carter Ltd., Inc., Fayetteville

† William V. Chafin, Jr., Executive Director, Maury County Chamber of Commerce, Columbia

† Roger Charest, Vice President, Security Bancorp of Tennessee, Inc., Halls

† Jim Charlet, Executive Secretary, Tennessee Export Council International Trade Development, Nashville

Larry Chilton, President, Clark Containers, Inc., Lyles

◆ Edmond D. Cicala, President, Edmond Enterprises, Inc., Memphis

* David Coffey, Chairman, C.E.O., Nucleus, Inc., Oak Ridge

† Robert B. Colbert, Jr., Director, Union Planters Corporation, Memphis, Chattanooga

Harry L. Cole, Plant Manager, Oster, Professional Products Division, McMinnville

† James C. Cotham, III, Professor of Management, Massey Graduate School of Business at Belmont College, Nashville

David A. Cranford, Administration, Erlanger Medical Center, Chattanooga

◆ Roger A. Daley, Retired Newspaper Executive, Knoxville

Charles W. Davies, Jr., President, Signal Apparel Co., Inc., Chattanooga

* Thomas H. Davis, Manager, Internal Auditing Dept., Tennessee Farmers Cooperative, LaVergne

◆ Charles H. Dean, Jr., Director, Tennessee Valley Authority, Knoxville

Gerald J. Doyle, Vice President - Group Manager, The MAXIMA Corporation, Oak Ridge

* Arthur R. Eggert, Vice President, Manufacturing Operations, Bridgestone (USA), LaVergne

* Paul M. Engelmann, Executive Director, United Way of Greater Chattanooga, Chattanooga

J. Steven Ennis, President, Coca Cola Bottling Works, Tullahoma

† Joseph R. Exum, Chairman, Leland Powell Fasteners, Inc., Martin

† John T. Flaugher, Executive VicePresident, Sovran Bank / Central South, Franklin

◆ William A. Fortune, Chairman of the Board, FMP Development Corp., Knoxville

* Jerry B. Fussell, President, JBF Associates, Inc., Knoxville

Richard T. Gadomski, Chief Executive Officer, The PSI Group of Companies, Memphis

Joe Gaines, Director of Marketing, Tennessee Department of Agriculture, Nashville

Claude T. Gentry, President, Genco Stamping & Mfg. Company, Cookeville

† John F. Germ, P. E., Pres. and Chief Executive Officer, Campbell & Associates, Inc., Chattanooga

Alan Gray, Director, Governmental Affairs, Memphis Area Chamber of Commerce, Memphis

◆ Thomas A. Griffin, Jr., President, Mid-South Title Insurance Corp., Memphis

* Darwin R. Griva, Vice President and General Manager, Chromalox, E. L. Wiegand Division Emerson Electric Co., Murfreesboro

† Joe R. Grooms, Controller, Martin Marietta Ordnance Systems, Inc., Milan

Robert Grunow, Commissioner, Tennessee Department of Human Services, Nashville

G. Lynn Guthrie, Vice President, CFW Construction Company, Inc., Fayetteville

Louie W. Hailey, Jr., President, Townsend Supply Co., Jackson

* John D. Haltom, Director, Distribution, United Foods, Inc., Bells

◆ F. W. Hamilton, President, Industrial Development and Warehousing, Inc., Jackson

R. Paul Harkins, Sr. Financial Analyst, E. I. Du Pont de Nemours and Co., Memphis

William Harrison, , SSM Corporation, Memphis

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† Fred Harvey, Jr., Investor, Nashville

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† Waymon L. Hickman, President, First Farmers and Merchants National Bank, Columbia

James L. E. Hill, Plant Manager, Du Pont, Chattanooga

Terry P. Hoag, Human Resources Manager, Raytheon Company, Bristol

Stephen B. Holt, Executive Vice President, Kingsport Area Chamber of Commerce, Kingsport

Carter K. Hooks, CID FM/AEDC Executive Director, Obion County Chamber of Commerce, Union City

Larry Horn, Location Manager, Central Soya Company, Inc., Chattanooga

Edwin C. Hoskins, General Manager, Knoxville Utilities Board, Knoxville

Samuel H. Howard, Chairman, Phoenix Holdings, Nashville

Robert W. Hudson, Category Financial Manager, Procter & Gamble Mfg. Company, Jackson

Beecher Hunter, Vice President, Communications, Life Care Centers of America, Cleveland

George Hyfantis, Jr., President, International Waste Management Systems, Inc., Knoxville

Richard W. Ince, President, Sun Coal Company, Knoxville

* Pat J. Jansen, Senior Vice President of Finance, Allen & O'Hara Inc., Memphis

* J. L. Johnson, Vice President, South Central Bell Telephone Co., Nashville

Carl Johnson, Commissioner, Tennessee Department of Economic and Community Development, Nashville

* Glenn W. Jones, Jr., Partner, Director, Financial Information Group, J. C. Bradford Company, Nashville

Kevin Kane, Marketing/Promotion Director, Knoxville News-Sentinel Company, Knoxville

Dale A. Keasling, President and CEO, Valley Fidelity Bank and Trust Company, Knoxville

James J. Keras, Jr., President, Jim Keras Buick Co., Inc., Memphis

Thomas J. Kidd, General Manager, Kustom Music, Inc., Fayetteville

† Wendell C. Kirk, President, Heritage Federal Savings and Loan Association, Kingsport

Thomas H. Klindt, Assistant Dean, The University of Tennessee TN Agricultural Experiment Station, Knoxville

Walter F. Kneuer, Plant Manager, TRW Inc., Ross Gear Division, Lebanon

† Gene C. Koonce, President and Chief Executive Officer, United Cities Gas Company, Brentwood

◆ James W. Lail, President, Raines Brothers, Inc., Chattanooga

Joe E. Lancaster, Chief Executive Officer, Tennessee Farmers Mutual Insurance Company, Columbia

Charles B. Landguth, Vice President, Finance and Administration, Martin Marietta Energy Systems Inc., Oak Ridge

◆ Carl H. Langschmidt, Jr., Attorney, Boone, Wellford, Clark, Langschmidt & Apperson, Memphis

Steve Lannan, Asset/Liability Officer, Third National Bank, Nashville

◆ E. H. Lannom, Chairman of the Board, Forcum-Lannom Associates, Inc., Dyersburg

David Latture, General Manager, Chattanooga Choo Choo--Holiday Inn, Chattanooga

† Eldon Leslie, Executive Vice President, Cookeville-Putman County Chamber of Commerce, Cookeville

† Ronald S. Ligon, President, Christus Gardens of Gatlinburg, Franklin

Stallings Lipford, President and Chairman, First Citizens National Bank, Dyersburg

◆ Howard W. Loveless, President, HAAS INCORPORATED, Memphis

◆ Thomas A. Lupton, Jr., President, Stone Fort Land Company, Chattanooga

◆ John E. McCutchen, President, E. L. Morgan Company, Jackson

Robert P. McLean, Senior Vice President, AVECOR, Inc., Vonore

George L. McTavish, President and CEO, Comdata Holdings Corporation, Nashville

Mark A. Medley, President, Control Technology, Inc., Knoxville

William P. Melley, President, France Manufacturing, Fairview

Paula Mergenhagen, Research Associate, United Way of Middle Tennessee, Nashville

◆ Merle C. Meyers, Executive Vice President and Chief Executive Office, Middle Tennessee Natural Gas Utility, Smithville

John L. Mikovits, President, TRI Technical Corporation, LaVergne

Bill Mullican, Jr., President, TODCO Wood Products, Alcoa

James Murray, President & CEO, Nutum Corporation, Nashville

* Hugh G. Neil, Jr., President, Special Instruments Laboratory Inc., Knoxville

* Ralph E. Newman, Jr., Managing Partner, Morgan, Newman & Associates Certified Public Accountants, Jefferson City

Lewis Nolan, Vice President Communications, Plough, Inc., Memphis

Tom Norris, Jr., Vice President, General Manager, Nutrionics, Inc., Parsons

Robert E. Oldham, Sr. Vice President, Finance and Administration, Red Food Stores, Inc., Chattanooga

† Joseph Orgill, III, Chairman of the Board, West Union Corporation, Memphis

* John L. Parish, President, Worth, Inc., Tullahoma

Caron Petersen, Assistant Professor, Tennessee State University Center for Labor Mgt. Relations, Nashville

* Ivan Pihl, General Manager, Reelfoot Packing Company, Union City

◆ Richard A. Piske, Director of Quality Assurance, Allen & Hoshall, Inc., Knoxville

† Herman Postma, Senior Vice President, Martin Marietta Energy Systems, Oak Ridge

* Patricia D. Postma, Principal, Millennium Associates, Oak Ridge

◆ James B. Ragland, Chairman, C. B. Ragland Company, Nashville

† Richard E. Ray, Manager, Tennessee Operations, Aluminum Company of America, Alcoa

Harry T. Robinson, Jr., Chairman, Atlas Paper Box Company, Chattanooga

† Robert A. Rogers, Vice President, Administration, Plumley Companies, Paris

John R. Salzer, Plant Controller, Rohm & Haas Tennessee Incorporated, Knoxville

Camden B. Scearce, Vice President Secretary-Controller, The Krystal Company, Chattanooga

Bob Shackelford, President, Shackelford Corporation, Savannah

Harold D. Shaw, President, United Way of Greater Memphis, Memphis

* Gary K. Smith, President, American Uniform Co., Cleveland

* James F. Smith, Jr., Vice Chairman, First American National Bank, Nashville

Reuben M. Smith, President, Reuben M. Smith Associates, Inc., Nashville

Kenneth V. Spenser, Site Manager, Industrial Systems Division, Texas Instruments - MS 3501, Johnson City

* Andrew J. Spurgeon, Senior Resident Vice President, Merrill, Lynch, Pierce, Fenner & Smith, Inc., Nashville

* Herbert St. Goar, President and CEO, Dixie Saving Stores, Inc., Chattanooga

† Carl M. Stanley, President, Burroughs-Ross-Colville Company, McMinnville

* J. Gilbert Stein, Chairman of the Board, Stein Construction Company, Chattanooga

William B. Stokely, III, Chairman and President, The Stokely Company, Knoxville

Lonnie J. Stout, President and C.E.O., Volunteer Capital Corporation, Brentwood

* Thomas E. Sudman, President, Digital A. V., Knoxville

† William H. Swain, Chairman of the Board and CEO, First National Bank of Oneida, Oneida

Margaret Taylor, Senior Analyst, Federal Express Corporation, Memphis

Michael D. Terry, President and CEO, The Troxel Co., Moscow

◆ W. Neil Thomas, Jr., Partner, Shumacker and Thompson, Chattanooga

† J. R. Thompson, Vice President, Finance, TPI Corporation, Johnson City

R. H. Traeger, Vice President and General Mgr., Toshiba America, Inc., Lebanon

Rayburn Traughber, Commissioner, Tennessee Dept. of Employment Security, Nashville

Alvin Trivelpiece, Director, Oak Ridge National Laboratory, Oak Ridge

* Thomas M. Tucker, Secretary, Power Equipment Company, Knoxville

* Richard E. Tumblin, CLU, Chartered Financial Consultant, Equitable Financial Companies, Knoxville

Cal Turner, Jr., Chairman and CEO, Dollar General Corporation, Nashville

◆ John M. Upchurch, Appraiser and Land Surveyor, Buchanan

Tom W. Wade, Jr., Owner, Tom Wade Co., Kenton

Thomas G. Weeks, Manager, Tennessee Tool and Die Co. Div. of Langley Wire Cloth Products, Adamsville

* Jack D. Whitfield, President, Sverdrup Technology, Inc., Tullahoma

Thomas E. Wilson, Chairman of the Board and CEO, Sovran Bank/Tri-Cities, Johnson City

Charles M. Wilson, President, CMW, Inc., Memphis

Albert Wofford, Tennessee Group Controller, Seigel Robert, Inc., Ripley

Charles E. Wolfenbarger, President, International Union of Electricians, Local 748, Jefferson City

◆ W. Lewis Wood, Jr., Senior Vice President, Allen & Hoshall, Inc., Memphis

Frank Wylie, President, Grace and Wylie Fabricators, Inc., Brentwood

* Thomas L. Yount, Investor and Consultant, Nashville

† Allen Zang, President, Nashville Bridge Company, Nashville

★ These panelists have served 21 years.

◆ These panelists have served 15 or more years.

† These panelists have served 10 or more years.

* These panelists have served 5 or more years.

DEMOGRAPHIC PROFILE OF THE 1990 ECONOMIC OUTLOOK PANEL

The 1990 Economic Outlook Panel is made up of 167 business, government and academic leaders from across Tennessee. Although 161 responses were received in time to be included in the data tabulation and analysis, another six were received after tabulations were complete. However, comments from all respondents provided valuable direction to the authors. Through participation in the "Business Attitude Survey," mailed in October of each year, these leaders share their expectations for the U.S. and Tennessee economies from both their business and regional perspectives.

The tabulation of data by geographic location includes 46 responses from business leaders in West, 54 from Middle, and 61 from East Tennessee. Chart A shows this geographic distribution of the 21st Outlook Panel as well as the geographic distribution of the population and number of business establishments in Tennessee. The data sources for the latter are *Current Population Reports* and *County Business Patterns*, both published by the U.S. Department of Commerce, Bureau of the Census. The 1990 Outlook Panel appears to be representative of the population and business concentration for each region of Tennessee.

CHART A

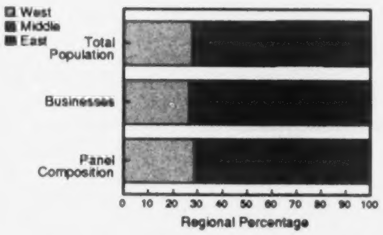
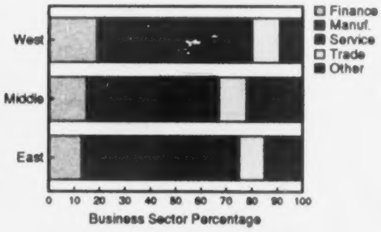


CHART B



Data are also tabulated according to five industry group designations. Responses to the 1990 Outlook survey include 53 manufacturers, 41 service sector panelists (including chambers of commerce, United Way agencies, consulting firms, accountants, architects, and attorneys), 25 finance panelists (including banks, insurance, brokerage firms and other financial consultants), 17 wholesale and retail trade panelists, and a fifth category designated "other," which includes 41 business leaders from construction, labor, public utilities, education and government.

Chart B depicts the industry group composition of each geographic sector.

THE 21st ANNUAL BUSINESS ATTITUDES SURVEY

by Kenneth E. Quindry, Betty B. Vickers and David A. Hake

With a special section on health services by Sandra Putnam and Eddie S. Moore

PART I: ECONOMIC DEVELOPMENT AND BASIC EDUCATION

PART II: BUSINESS PANEL'S OUTLOOK FOR 1990

PART III: CRITICAL ECONOMIC CONCERNS FOR 1990

PART IV: SOCIAL ISSUES OF THE NINETIES

PART V: TENNESSEE HEALTH SERVICES ISSUES

In this the first year of the third decade of the annual business attitudes survey, 167 of Tennessee's business, government, and academic leaders accepted the invitation to respond to the CBER questionnaire. While economic issues remain central, a section on social issues has been reintroduced after a lapse of several years. In general, the panel members appear to be neither overly optimistic nor overly pessimistic about Tennessee's economic performance in 1990 as compared to 1989. Two major concerns as expressed by the panel are the growing concern over the scarcity of skilled workers and the inadequacy and inequality of basic education. Of particular social concern for the 90s are the issues of family breakdown and the illegal use of drugs. While Outlook 90 panelists are particularly concerned with education inadequacies, they are less than unanimous on the additional financing and finance sources required to provide for an educated and trained work force to meet the needs of a growing and dynamic society.

This report is divided into five parts. Part I deals with basic education and education financing. Parts II and III focus on the respondents' evaluation of the 1990 state economic performance. Part IV examines several potential social problems, and Part V deals with health service issues. Even though all parts are highly related, each is dealt with separately in the article.

PART I
ECONOMIC DEVELOPMENT AND BASIC EDUCATION

In Part I, the introductory section (up to the section titled "1990

Outlook Panel Responses") was earlier provided as background to the panelists. Because of the significant nature of this issue and its complexity, the complete background is repeated here.

Background

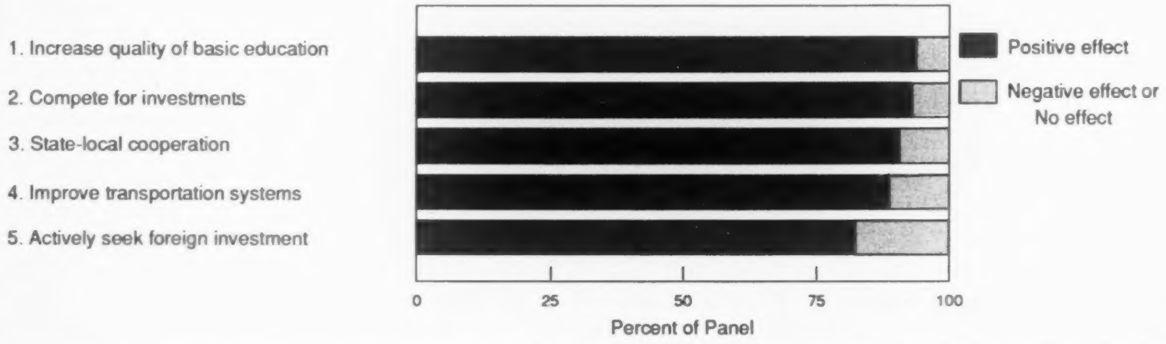
The 1990 Outlook survey noted that general agreement exists that a major objective of state policy is economic development. Also, the 1989 outlook panel identified improvement in basic education as the government's top policy alternative to affect long-term economic development posture in Tennessee. (See Figure 1.) The 1990 panel agrees. Note, for example, the responses in Parts III and IV of this report in which 85 percent of the panel believes the inadequacy of basic education to be a critical economic problem. The inequitable distribution of education opportunities is also viewed as a critical social issue.

This past year the Tennessee State Planning Office funded a study prepared by CBER addressing the strategy for long-term economic development.[1] Several papers were prepared for the study, which represented the work of specialists selected from across the state and nation whose experience and expertise allowed them to offer concise analyses of present conditions and to make suggestions for enhancing the health and vibrancy of the state economy. The papers cover such subjects as education and training, economic development financing, economic development, public infrastructure, balance in urban-rural growth, and the role of technology in Tennessee's economic future. In each of the seven papers, a focal point is the need to improve basic education.[2]

In essence, the report states that Tennessee's future economic growth will be substantially determined by private sector decisions, but the state and local governments play a supportive role by creating a favorable business atmosphere and by providing services which are conducive for development. The most important services for development are (1) a sound basic education and training, which allow for a productive labor force; and (2) an appropriate infrastructure to accommodate development.

FIGURE 1

Outlook 1989 Panel's Opinions of Effectiveness of Policy Alternatives on State Economic Environment (Top 5 Alternatives)



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[1] *Economic Prospects for Tennessee's Future*, Tennessee State Planning Office, June 1989. A copy of the "Overview" of the full report is available upon request from CBER.

[2] Five objectives for a "new basic education" package are set out in the report (p. 69): (1) achieve communications skills that enable people to comprehend complex instructions and to work in groups effectively, (2) achieve mathematical skills and the ability to apply them, (3) achieve critical thinking skills necessary to diagnose new situations and react to them, (4) achieve flexibility to shift rapidly from one problem or situation to another, and (5) apply abstract concepts and generalizations to concrete situations.

Funding Basic Education

The education system should provide students with the knowledge and skills that will enable them to enter the job market and to grow and change as jobs change in a dynamic society. A high quality basic education system requires that financing be equalized upward to the best systems in the state. This will necessitate increased funding, which can come only from higher taxes, the major burden of which will doubtless fall on state government.[3]

Tennessee is a low-tax state in comparison with the average state. Only two of eleven other southeastern states spend less per capita than Tennessee. Expenditures are limited by revenues because the state constitution requires an annually balanced budget; hence, they must be evaluated in tandem. (See Figure 2.)

As indicated in Figure 3, Tennessee is below the national and Southeastern average in per-pupil spending for K-12 education. As a percent of total budget, Tennessee spends 20.8 percent on K-12 education as compared to the 24.4 percent spent in the southeastern states. Vast differences in level of per-student funding are found among the 140 Tennessee school districts, ranging from $3,710 to $1,530 in 1986. There is only one school district among the 140 that spends more per student than the 50-state average, as illustrated in Table 1. Only six school districts in Tennessee spend more than the southeastern state average, and only 23 exceed the Tennessee average. Out of 140 school districts, 117 are below the Tennessee average. This is primarily due to varying state as well as local tax ability and effort and to the state's aid formulas. While federal support to Tennessee slightly exceeds the 50-state average, support by Tennessee state and local governments is less than the average state in the Southeast or in the nation, as Figure 4 illustrates.

State and local revenues in Tennessee are equal to 13.1 percent of personal income (15.2 percent in the average state). Seventy-two percent of Tennessee state government revenues come from own sources (tax revenues, charges and fees, and interest earnings) and 28 percent from federal assistance. (See Figure 5.) The vast part of own-source revenue is from taxes. Figures 6 and 7 show that 77 percent of Tennessee state tax revenue comes from sales-based taxes, and 2 percent comes from personal income taxes. In the average state, 47 percent comes from sales-based taxes and 32 percent from personal income taxes. Local government tax revenues in Tennessee are primarily sales and property taxes.

Attributes of Heavy Sales Tax States

Research over several decades suggests that certain attributes of sales taxes may impact the overall adequacy and fairness of a tax system in heavy sales-tax-dependency states. Tennessee is among the leading states in dependency on sales taxes.

First, *the average Tennessee business pays a significant share of sales taxes*. Estimates are that 20 to 33 percent of total general sales taxes are paid by businesses on their purchases of equipment and supplies. Second, *sales taxes are inelastic*. Sales tax revenues grow more slowly than personal income. In economic terms, this is called inelasticity. As taxes decline relative to personal income, it is impossible even to maintain the current level of public services. As a result, frequent rate increases are required to restore the ratio of taxes to income. (See Figures 8 and 9.)

Third is *tax fairness*. The burden of sales taxes falls heavier on low-income taxpayers because they spend a higher percentage of income on taxable items. Economists call this tax *regressivity*. The Washington, D.C. Department of Revenue and Finance recently completed a study of the equity implications of the tax structure in the largest city in each state. Memphis was selected in Tennessee, though the results would be approximately the same for any Tennessee city. (See Figure 10.) Memphis has the most regressive tax burden of any U.S. city studied.

Fourth, *sales taxes alter the patterns of consumer spending* (all transactions are not taxed equally, some not at all) and encourage out-of-state spending, especially along borders with states which have lower rates and narrower bases. Every border state has lower state-local tax rates than Tennessee, as can be seen in Figure 11. One of the border states even exempts food--a major item of consumer spending.

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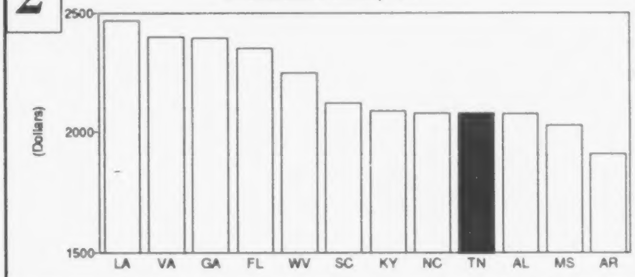
[3] A figure of a $400 million increase in funding statewide exclusive of new capital expendirures has been suggested. See *The Knoxville News Sentinel*, "Goals for Schools Pose Tough Choices for Officials, Taxpayers," November 27, 1989, p. 3.

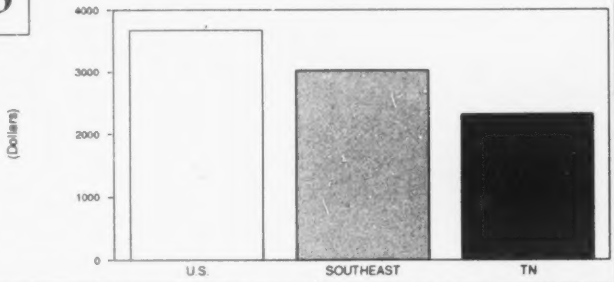
2

State and Local Government Expenditures Per Capita, Southeastern States, 1987



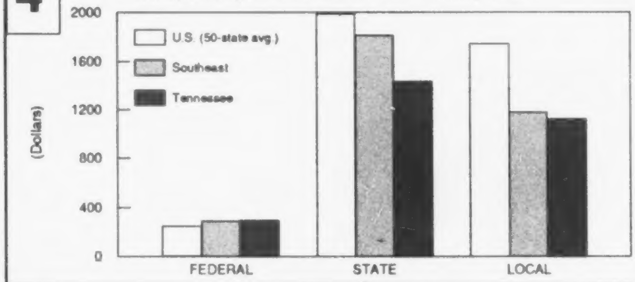
3

Average Education Expenditures per Pupil, 1986



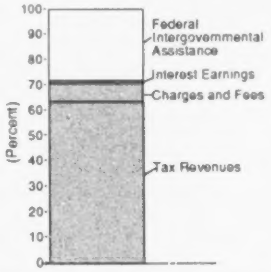
4

Per Pupil Education Funding from Federal, State and Local Governments, 1987



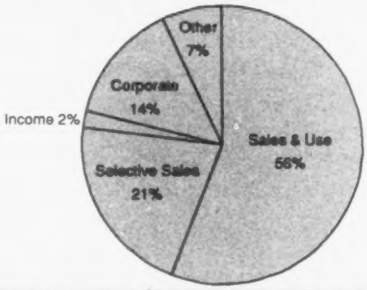
5

Sources of State Government Revenues, 1987



6

Percentage Distribution of Tennessee Tax Revenues, 1988



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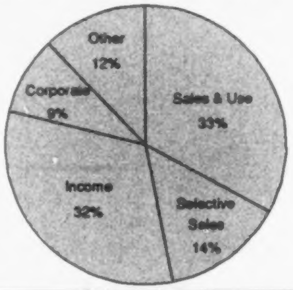
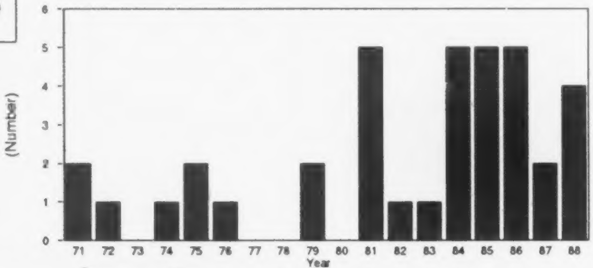
Percentage Distribution of U.S. State Tax Revenues, 1987



8

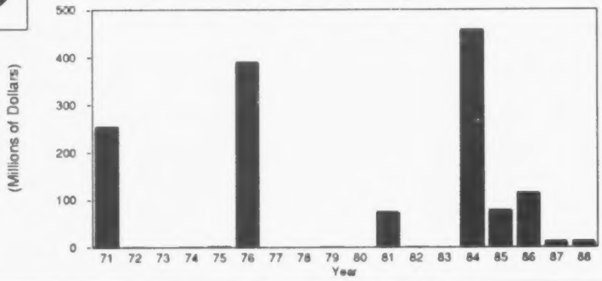
Number of Tennessee Tax Rate Increases Each Year Since 1970[1]



[1] Department of Revenue taxes only.

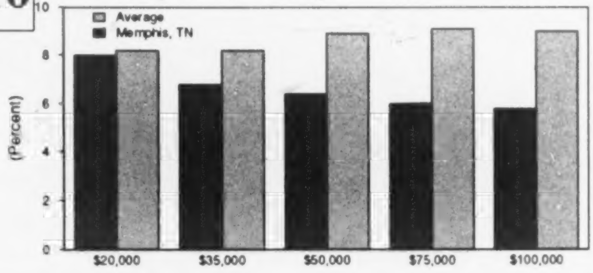
9

Increase in 1987-88 Tennessee Revenue Department Tax Revenues from Rate Changes



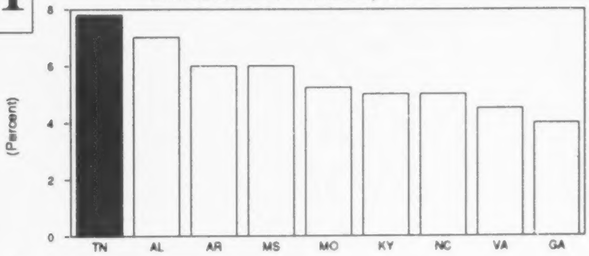
10

Tax Burden as a Percent of Income, Memphis, TN, and Average of Cities, 1987



11

State and Local Sales Tax Rates,[1] Tennessee and Border States, 1988



[1] The predominant local option sales tax rate is included

Fifth, *sales taxes are unstable over the business cycle*, growing rapidly in growth periods and slowly in recessions; yet the demand for public services does not rise and fall with the business cycle. In fact, some service needs increase in recessions, e.g., welfare and education.

Revenue Options for Tennessee

Panelists were advised that, given the existing tax structure, Tennessee may be able to maintain current service levels for the next few years if the state's economy remains vibrant. Revenue growth will be modest, but careful budgeting and efficient use of the state's available resources may permit the status quo until a recession occurs.

As noted later in this report, a few respondents offer some support for efficiency measures as a solution to the finance problems. One panelist remarked, "My only comment is that no consideration is given to whether government is efficient in spending our tax dollars." Efficiency, however, has limited application, as evidenced by the recent Claiborne County experience. Schools were closed temporarily and the shut-down of other public offices was threatened until a tax increase was approved by the County Commission. While this objective was well intentioned, any remaining efficiency measures offer little hope of providing improved services.

If Tennessee is to compete economically with other states, major revenue increases will be needed in the next decade. As one panelist expressed it, "We are not generating sufficient tax revenues to improve the quality of life of our citizens." While there are many ways to increase revenues, only a few methods are capable of producing the funds necessary to meet Tennessee's growing developmental needs. Each method will have an impact on the five attributes listed above. Following are five alternatives for generating funds:

(1) *Raising current state and local sales tax rates* without broadening the base. In order to be productive--that is, to generate sufficient revenues--the rate increase would have to be substantial. The sales tax is already above average in both rate and comprehensiveness. In addition, because it is an inelastic tax, more periodic increases would be needed in later years. This alternative perpetuates the current tax structure problems.

(2) *A broad-based personal income tax* structured to grow in step with the economy. Income taxes are less regressive than sales taxes on individuals and more equitable for businesses, since unincorporated businesses now pay no state income taxes in Tennessee. A personal income tax (of 2 to 4 percent) would be productive and would replace a portion of other state taxes--in

TABLE 1
Current Education Expenditures Per Pupil
in Average Daily Attendance, 1986

Rank	County	School District	Amount
1	Anderson	Oak Ridge	$3,710.03
	UNITED STATES AVERAGE		3,676.93
2	Sullivan	Kingsport	3,373.13
3	Sullivan	Bristol	3,351.63
4	Davidson	County*	3,221.45
5	Blount	Alcoa	3,149.07
6	Greene	Greeneville	3,032.99
	SOUTHEASTERN STATES AVERAGE		3,025.45
7	Washington	Johnson City	2,941.77
8	Hamilton	Chattanooga	2,819.15
9	Coffee	Tullahoma	2,816.52
10	Anderson	County	2,728.88
11	Knox	Knoxville	2,720.92
12	Shelby	Memphis	2,715.67
13	Carter	Elizabethton	2,677.36
14	Sullivan	County	2,630.09
15	Coffee	Manchester	2,573.03
16	Dyer	County	2,454.67
17	Clay	County	2,450.79
18	Blount	Maryville	2,435.51
19	Hamilton	County	2,429.80
20	Madison	Jackson	2,411.59
21	Scott	County	2,370.99
22	Coffee	County	2,326.60
23	McMinn	Athens	2,324.68
	TENNESSEE AVERAGE		$2,312.08

Sources: National Education Association, *Estimates of School Statistics, 1986-87*. U.S. Department of Commerce, Bureau of the Census, *Finances of Public School Systems in 1985-86*, Series GF-86-10, U.S. Government Printing Office, Washington, D.C. 1988. Tennessee Department of Education, *Annual Statistical Report of the Department of Education for the Scholastic Year ending June 30, 1986*. Table XL, pages 332-5.
Note: Includes expenditures financed from federal, state and local sources.
*Municipalities are listed where funding levels are higher than in the county.

particular, the sales taxes--and spread the tax burden more evenly over the state's taxable resources.

(3) *A value-added or single business tax* imposed equally on all incorporated and unincorporated manufacturing and service establishments. This tax would replace some state taxes (in particular, the corporation excise tax) and reduce other taxes. It would be productive at a low rate (1 to 3 percent) and would reduce both the cost of taxpayers' compliance and state collection costs, since fewer total returns would be filed.[4]

(4) *Broaden the general sales tax base* to include professional and other services currently exempt. This step would be productive, and minimal improvement in inelasticity and fairness would be expected; however, out-of-state consumer spending would be encouraged.

(5) *Increase the state sales tax rate, repeal the local sales tax option, and share more state funds* on a formula favoring poor school districts and local governmental units. Because the local sales taxes are a major source of K-12 support, this alternative could generate additional and more uniform K-12 financing. The major thrust is to equalize both collections and expenditures statewide. To equalize upward would require a net tax increase and revised distribution formulas. Equity consequences would be similar to those of alternative one above.

Any of the alternatives could be used to increase revenues, and any could be used to share more funds with local units to increase uniformity in spending across the state.

1990 Outlook Panel Responses

It is widely recognized that the state's economic destiny rests on improvement in basic education and that will require greater expenditures and increased taxes. Taxpayers do not appear to be unwilling to pay higher taxes if they are assured that the funds will be used efficiently for an effective program of education improvement.[5]

Because inadequate education fosters both economic and social problems and improved education is highly unlikely without increased financing, the panel was asked to evaluate the five primary attributes of the current tax system and then to express a preference as to the most appropriate source for additional funds.[6] Basically, there are only two alternatives encased in the five tax proposals listed. The first is to increase revenue from currently used tax sources. Second is to increase revenue by introducing new tax sources designed to utilize more fully the state's taxable resources, reduce tax regressivity, and increase growth potential (elasticity).

Analyses

Panelists were asked to respond to the listed attributes, considering particularly a tax system like Tennessee's, which is highly dependent on sales taxes. At least three-fourths of the panel believed that the attributes were of serious-to-moderate concern, while less than one-fourth expressed no concerns for the ulterior effects of the attributes. (See Figure 12.) The serious concern for inelasticity and regressivity was especially high, one-third believing them to be serious, as compared to half or less of that percentage voting for seriousness of the remaining three. Slightly less serious concern was expressed for the remaining attributes.

Numerous panelists commented on this issue.

An East Tennessee Manufacturing Executive: Each point taken alone is a moderate problem. Together they comprise a severe (one) that needs to be addressed.

A Middle Tennessee Manufacturing Executive: All are moderate problems on their own, but taken together add up to a system that could stand an overhaul.

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[4] For a fuller explanation of this alternative, see Kenneth E. Quindry and John L. Parish, "Restructuring Business Taxes in Tennessee," *Survey of Business*, (Center for Business and Economic Research, Fall 1984), pp. 20-25.

[5] Note the above reference to the Claiborne County experience. Also, Steve Norris, director of the Tennessee Business Roundtable, is quoted as saying that the business group would support a tax increase if assured the funds would go for real education reform. See "Group OK's Taxes if Used for Schools," *The Knoxville News Sentinel*, November 30, 1989, p. A2.

[6] While a sixth alternative, lotteries, has proven to be a good revenue source in several states, it is not included in the survey because it does not appear that Tennessee voters are amenable to it at this time. Moreover, this alternative is prohibited by the state constitution.

A Middle Tennessee Manufacturing Executive: We must relax our tax burden on low-income individuals. Business can assume more responsibility for the tax burden.

An East Tennessee Business Executive: Proper planning and reserves could ride out the business cycles.

A West Tennessee Trade Executive: Business tax should remain low so the job-creating machine can flourish.

A West Tennessee Finance Executive: Few businesses probably change investment based on this tax (sales tax).

An East Tennessee Manufacturing Executive: Sales tax on supplies and repairs for manufacturing puts Tennessee at a competitive disadvantage with many states.

Choices Among Alternatives

The concerns for the adequacy and fairness also predominate in the panelists' preferences for increased tax revenues. The panelists were asked to rank the potential sources of new taxes from 1 to 5, one being the first choice and five the last choice. Results are presented in Figure 13. Almost two-thirds of the respondents listed a broad-based personal income tax as their first or second choice for increasing revenues as opposed to approximately one-half favoring the value-added tax or a broadening of the general sales tax base. Increasing the state and local rates on the current sales tax bases ran a poor fourth. Even less acceptable was the desire to centralize collection responsibility by repealing the local sales tax option and increasing the state rate with compensating revenue sharing.

The high ranking of the personal income tax and value-added tax is amazing, given the typical reluctance of taxpayers to accept new directions in taxation. The top ranking of the broad-based personal income tax reflects the desire to increase tax elasticity and fairness.

Alternatives ranked fourth and fifth do not appear to be viable in the views of the panelists. The low rating of the increase in the current sales tax rates probably stems from their inelasticity and regressivity and a general belief that sales tax rates are already out of line with other states. Centralizing sales tax collections perhaps leaves taxpayers with concerns for local revenue adequacy--keeping some local control over taxation. The major thrust of this alternative, as well as a net increase in revenue, was regional equality in expenditures, but this does not appear to be a strong policy concern for the panelists.

The participants commented readily on their choices for new revenue sources. Their comments represent a wide range of tax and spending philosophies. Panelists were asked to comment on their first and last choices, respectively. Some representative quotes follow.

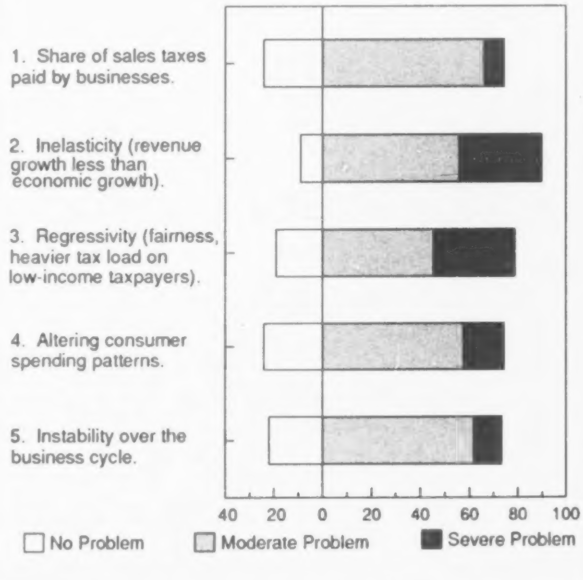
An East Tennessee Business Executive: Regressivity and elasticity are the two major problems with the present structure in my opinion. A personal income tax would correct this.

An East Tennessee Manufacturing Executive: A reasonable broad-based personal income tax would grow with the economy and lessen the unfair load on business, thus contributing to economic growth.

An East Tennessee Manufacturing Executive: There should not be a personal income tax, as it will open the door for much increased spending programs with no control.

A Middle Tennessee Executive: Put a value added tax on all products and services (no exclusions) to achieve equity and eliminate any of above five perceived disadvantages. It relates taxes to benefits received. If you tax income, you subsidize the inefficient and incompetent deliverer of product and services. If you tax sales, you do the same to a lesser degree. If you tax assets, you make capital-intensive businesses subsidize service (people-intensive) businesses. The only equitable tax is a broad-based (no exceptions) value added tax.

FIGURE 12
Respondents' Opinions on Severity of Five Tax Attributes
(By percentage of respondents expressing an opinion)



An East Tennessee Manufacturing Executive: Sales tax levies have a direct effect on the consumer of state services and should help control spending.

An East Tennessee Utility Executive: The sales tax seems to have all the problems outlined in Q1 (large share paid by businesses, inelasticity, regressivity, alters consumer spending, unstable over business cycle). Raising the rate would just make it worse.

An East Tennessee Business Consultant: (Value added tax) seems to be the most efficient excise tax.

A West Tennessee Industrial Consultant: Business tax would keep industry out.

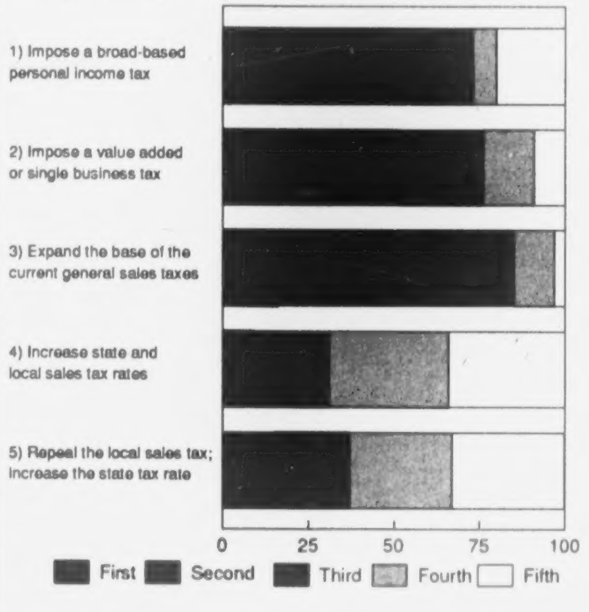
A West Tennessee Business Executive: I believe a sales tax generally spreads the tax fairly among every taxpayer. It also appears to have an easy means of collection.

A West Tennessee Retail Trade Executive: Our sales tax rates are already among the highest in the country. It is not a tax inducive to good business.

With regard to repeal of the local sales tax option, a Middle Tennessee business executive said:

The local tax is needed by local government. They should be able to tax for local needs and again the sales tax is reasonable (although maybe not completely fair since urban shopping areas benefit at expense of rural areas) perhaps the sales tax could be more equitabley distributed to local government.

FIGURE 13
Panelists' Choices Among Alternative Sources for Increased Tax Revenues
(Percentage of respondents expressing an opinion)



PART II
BUSINESS PANEL'S ECONOMIC OUTLOOK FOR 1990

Each autumn for the past 21 years, business leaders across Tennessee have been asked to share their expectations for the state and the national economic climates for the year ahead as compared to the past year. This year 167 executives accepted the invitation.

The majority opinion of the 1990 Economic Outlook Panel is for "status quo" in both the state and national economies for 1990 as compared to 1989. In Figure 14 we note that 52 percent of the business executives responding to the 1990 Business Attitudes Survey expect the Tennessee economy to be about the same in 1990; 50 percent hold this expectation for the national economy.

Overall, the opinion of the outlook panel is slightly more positive for the state than for the nation. Approximately 25 percent expect improvements at the state level, while only 16 percent look for improvement in the national economy. Moreover, 35 percent expect a downturn for the U.S. compared to 23 percent for Tennessee.

A Service Sector Panelist from Middle Tennessee explains why he ranks Tennessee above the nation regarding economic prospects for 1990:

For the past 10 to 20 years, I have felt each year that the outlook for Tennessee is brighter than that of the nation as a whole. Our strengths are in our diversification of industry, ability to attract outside investment, including foreign investment, of which I do not necessarily approve, and the general attitude of our people. The greatest weaknesses lie in our regressive tax system and its consequent inadequate educational program.

The following comments also reflect the majority opinion of the 1990 Outlook Panel:

A Middle Tennessee Manufacturer: Tennessee is experiencing and will continue to experience good growth because of our expanding industrial base. This growth must be supported with an improved supply of skilled workers, better roads, etc. which will take additional revenues. Tennessee must overhaul its tax system to adequately and fairly fund these new growth requirements.

An East Tennessee Business Leader: The outlook for 1990 is positive. However, the state cannot be 48th in education and human services and be an industrial, high-tech giant. Our tax structure must be more progressive to have a significant impact on the future.

A West Tennessee Business Leader: The general outlook for Tennessee remains good. It appears we are on the verge of improving two areas of concern--taxation and basic education. We have a popular governor who will be seeking his second term and will not be concerned by political problems connected with these changes--taxes in particular.

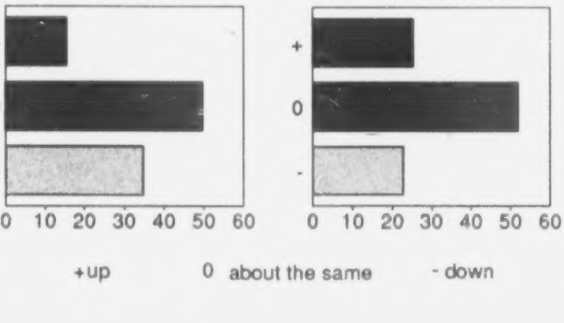
Outlook by Geographic and Business Sector

Business leaders from the eastern and western regions of Tennessee echo the opinion of the panel in their expectation that the U.S. economy will remain about the same in 1990 as compared to 1989. Middle Tennessee panelists, however, are less optimistic regarding prospects for the national economy. Figure 15 shows that 47 percent of the Middle Tennessee panelists look for a decline in the U.S. economy.

Mid-state panelists also have lower expectations for the Tennessee economy than their counterparts in East and West Tennessee. This view is described by a banker from Middle Tennessee:

> Tennessee's economy is slowing and will continue to slow through 1990. I believe we will have a "soft landing," or a better term would be a growth recession. This will undo the excesses we have experienced during this economic cycle and still allow us to escape the traditional pain of the typical recession.

FIGURE 14
1990 Expectations for Tennessee and U.S. Economy
as Compared with 1989
(Percent of Panel)



Thirty-two percent of the Middle Tennessee business leaders expect a decline in the state economy. However, panel opinion that the state economy will remain about the same in 1990 is led by East Tennessee panelists, among whom 62 percent hold this more optimistic view.

An East Tennessee Service Sector Panelist: I think 1989 is proving to be a good year for jobs and investment in Tennessee. It is my opinion that 1990 will be a continuation of many of the conditions we are presently experiencing.

The tabulation of responses by business sector allows us to observe differences of opinion by finance, manufacturing, service, trade, and "other" sectors. Only small differences are seen in the business sector outlooks for 1990. The service sector has the lowest expectations for both the state and national economies. Forty-one percent of service sector panelists look for a decline in the U.S. economy and 30 percent expect a decline in the Tennessee economy. On the plus side, finance executives have the highest expectations for the U.S. economy, with one-quarter looking for improvements in 1990 as compared to 1989. High expectations for the state economy are led by trade sector panelists, among whom 31 percent expect improvement and less than 13 percent look for a decline.

Other

The opinions of the "other" category panelists regarding expectations for the state economy in 1990 are as diverse as the business leaders that make up this group. This category includes executives from public utilities, construction firms, labor, education, and government. Forty-four percent look for no change in the state economy, while 32 percent expect it to be better than 1989 and 24 percent look for a decline.

PART III
CRITICAL ECONOMIC CONCERNS FOR 1990

In addition to sharing their views on the general health of the state and national economies, respondents to the Business Attitudes Survey were asked to review and evaluate 20 areas of potential economic concern in the Tennessee economy. Panelists recorded their expectations for each area for 1990 relative to 1989; then they selected and ranked the five issues they believed would be most critical to the health of the Tennessee economy in 1990.

Table 2 lists the potential economic problem areas in order of importance as indicated by the panel score, which is the sum of the weighted ranks each problem received. Also shown is the percent of the panel that included the issue among the five most critical issues.

The list of potential economic problem areas has remained essentially unchanged since the Survey began in 1969. However, panelists are given the option of adding areas that they consider important. This year, for example, three panelists identified "health care costs" as a critical economic issue. This issue may be added to the list of potential economic problems for consideration by the whole panel in future surveys. A review of other potential problem areas led us to remove the areas of "supply of transportation services and logistical support" and "availability of energy" in favor of adding the following new areas:

- * inadequacy of basic education
- * supply of venture capital
- * adoption of technological innovations

Although panelists were not advised of these additions, they ranked each of them among the eight most critical issues for 1990.

Another change is seen in the listing of state and local taxes. In prior years panelists considered whether " *excessive* state and local taxes as a percentage of personal income" was a problem. This issue ranked 12th in 1988 and 17th in 1989. When the word "excessive" was dropped for the 1990 list and panelists were asked to consider if "state and local taxes as a percentage of personal income" were a problem, 20 percent of the panel listed this issue among the five most critical issues, ranking it seventh for 1990. One panelist, an East Tennessee Banker, shared this view:

> We are not generating sufficient tax revenues to do what we need to improve the quality of life of our citizenry.

Figure 16 shows panel expectations for the four most critical economic problems for 1990 and compares performance in these areas to 1989. The 1990 Outlook Panel overwhelmingly agreed that the two most critical economic issues center on the "inade-

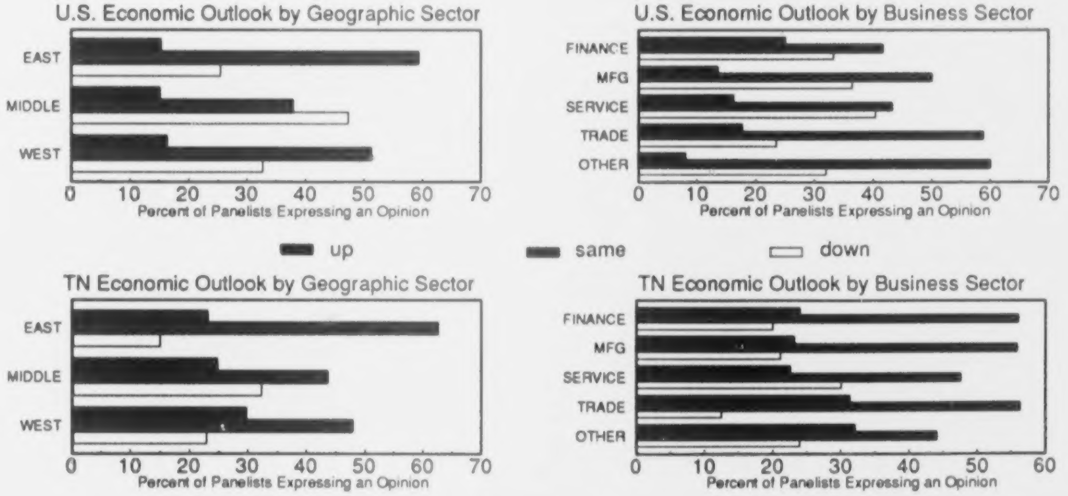


FIGURE 15
Outlook Panel views by Geographic and Business Sectors

quacy of education" and "the skill level of the workforce."

1. Inadequacy of Basic Education (score= 590)[*]

Over half of the 1990 Outlook panelists ranked "inadequacy of basic education" as the single most critical problem in Tennessee for 1990. Moreover, 85 percent of the respondents identified this issue as one of the top five problems, giving it a score of 590. The critical nature of this issue is emphasized by the expectations of the panel that the level of basic education skills will be the same or better in 1990. Fully 19 percent expect improvements. The importance of this issue is best described by the following panel comments:

An East Tennessee Manufacturer: In post-industrial America, knowledge and skill is king. We need revolution in education.

A West Tennesee Service Sector Executive: Tennessee must have a world class education system to compete effectively in an increasingly competitive international economy. Dating from the launching of Tennessee's "Better Schools Program," the public and private sectors have implemented a multiplicity of initiatives to improve education in Tennessee. These efforts have led to new levels of involvement and investment in our education enterprise. However, much more needs to be done.

An East Tennessee Business Executive: We have too many drop-outs at grade levels 8-12. A lack of encouragement and discipline at home leaves too many young people in a hopeless and disillusioned state of mind.

A Middle Tennessee Manufacturer: Unless basic education is improved, industry will cease to expand in the state, and the state will cease to attract new industry. A commitment to education with proper funding is essential.

An East Tennessee Service Sector Executive: Claiborne County Schools have just closed! It isn't that different from a number of other counties. Some of us are unwilling to acknowledge the necessity of a good education, others unwilling to help outside their own area. In either case this is a tragic situation.

An East Tennessee Manufacturer: Real and perceived inadequacies in basic education in Tennessee are the single greatest deterrent to new industry moving into the state. More money needs to be found for education, and a public relations campaign should be staged to counterbalance negative impressions of the educational system.

Many Outlook panelists selecting education as the number one problem tie its importance to the second-ranked issue, "scarcity of skilled workers."

A West Tennessee Manufacturer: An inadequate education fosters unemployment and also places Tennessee at a disadvantage in attracting new industry, especially high-tech industry.

A Middle Tennessee Banker: Tennessee does not possess the educated work force required to compete in the information age.

A Middle Tennessee Service Sector Executive: A highly competitive skilled labor force will be even more important in the 1990s and the year 2000 to be competitive in a global economy. Education is the key.

TABLE 2
Potential Economic Problems
Ranked by Importance to Tennessee in 1990

Rank	Issue	Percent of panel selecting issue*	Score
1	Inadequacy of basic education	85	590
2	Scarcity of skilled workers	73	423
3	Total costs increasing faster than revenues received	37	151
4	Ability to attract and keep competent managerial personnel	32	147
5	Demands for wage rate increases	23	90
6	Labor-management cooperation	19	86
7	State and local taxes as a percentage of personal income	20	85
8	Adoption of technological innovations	22	81
9	Supply of capital investment funds	20	79
10	Interest rates on loans	20	77
11	Level of commercial industrial construction	18	69
12	Inadequate consumer demand	15	65
12	Supply of venture capital	16	65
14	Cost of energy (electricity, gas, other)	16	59
15	Utilization of plant capacity	14	48
16	Level of new residential construction	14	44
17	Unemployment	9	35
18	Business-state government cooperation	9	30
19	Supply of short-term working capital	5	24
19	Consumer price level	6	24

*Each panelist selected five issues.

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[*] The score shown after each issue is the weighted response of all panelists considering the list of potential economic problems. It is included to indicate the relative importance of the issues.

An East Tennessee Utility Executive: The lack of an outstanding basic education system thwarts companies/industries from moving into Tennessee. An adequate income tax for education and social programs is needed.

A West Tennessee Finance Executive: This morning's *Commercial Appeal* ran an article about Nissan's being unable to find enough qualified employees. The primary reason is inadequate basic education. It is difficult to train people unable to read and comprehend properly. Some way must be found to make the public schools perform satisfactorily.

2. Scarcity of Skilled Workers (Score = 423)

Many panelists ranked inadequacy of basic education and scarcity of skilled workers first and second among the critical economic problems for Tennessee for 1990. An East Tennessee Manufacturer who ranked education as the top problem stated:

If I had the total answer I would be in Washington talking to President Bush today! Without improvement in my #1 choice, my #2 will continue to worsen. I feel that one of the main areas to attack the problem is for more involvement in education by business and parents.

Moreover, two manufacturers who ranked scarcity of skilled labor as the most critical problem believe that education is the key:

Scarcity of skilled workers and inadequacy of basic education are effectively the same; I agree that education is our single most important issue.

We see many workers who aren't sufficiently skilled to do the jobs they are working at (retail sales, restaurants, factories). Basic education for all is needed to solve this problem.

Other comments from panelists selecting scarcity of skilled workers also point out the importance of education in economic development:

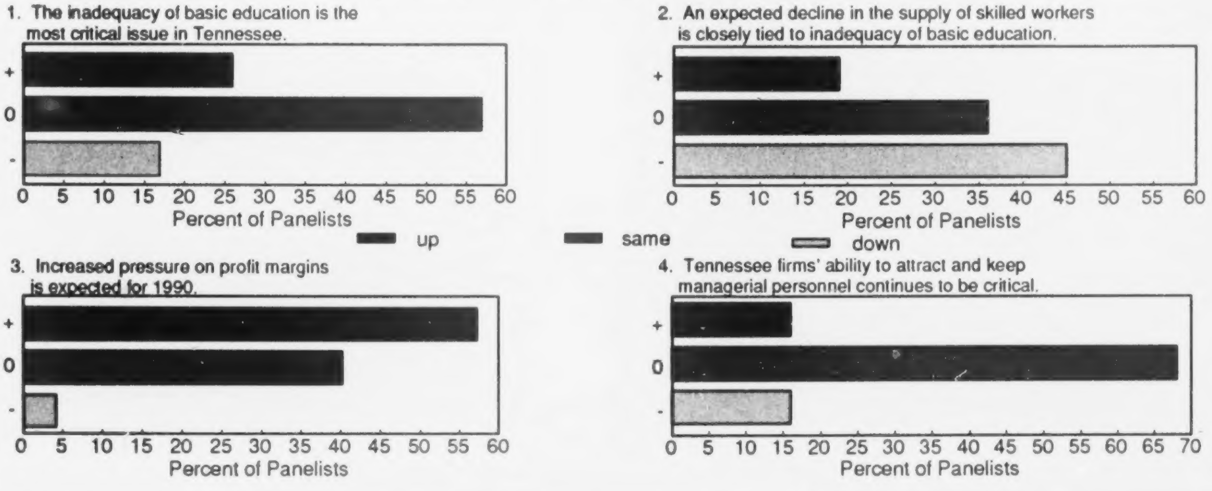
A Middle Tennessee Service Sector Executive: As other states pursue economic development more vigorously, our ability to import skills is declining. At the same time, our skilled population is aging and our training efforts are, at best, stable. In short, our position is deteriorating, and business nationally knows it.

An East Tennessee Manufacturer: Industrial growth through recruitment of new investments is limited most by the inadequacy of public education, particularly in poorer counties.

A Middle Tennessee Banker: As our rural Tennessee counties' employment base changes from garment or shoe factories to more high-tech manufacturing, our labor force remains largely unskilled. Until we (re)train our work force--trade education, not basic educational skills--we will have difficulty attracting industry to much of Tennessee.

3. Total Costs Increasing Faster than Revenues Received (Score = 151)

FIGURE 16
Critical Economic concerns in Tennessee:
Ranking and Expected Performance in 1990 Compared to 1989


1. The inadequacy of basic education is the most critical issue in Tennessee.

2. An expected decline in the supply of skilled workers is closely tied to inadequacy of basic education.

3. Increased pressure on profit margins is expected for 1990.

4. Tennessee firms' ability to attract and keep managerial personnel continues to be critical.

This issue was ranked fourth in 1986 and second or third in each of the succeeding years.

More than one-third of the panel ranked this issue among the five critical issues for 1990. In figure 16, we note that 57 percent expect increased pressure on profit margins in the coming year.

A West Tennessee Service Sector Executive: The proliferation of laws and regulations placing expensive demands on business is accelerating the cost of doing business. Fewer regulations and rules generated by government will help, but also, it will never come to pass. It will just get worse.

A Middle Tennessee Manufacturer: Most of our increasing costs are overhead costs, which include insurance, interest rates, legal fees due to frivolous law suit defenses, workman's compensation cases fraudulently staged, but won, or needless taxes by local cities where no services are received. We pay considerable taxes but must pay for fire protection, refuse dumping, etc.

4. Ability to Attract and Keep Competent Managerial Personnel (Score = 147)

Nearly one-third of the panel also ranked the ability to attract and keep competent managerial personnel among the five most critical problems in Tennessee:

An East Tennessee Service Sector Executive: Lack of continuity in management leadership is counterproductive.

A West Tennessee Finance Executive: Tennessee seems to be a middle management state. We attract divisions of larger business, but few really innovative companies with ongoing product development seem to be based here. I think we need ways to attract and encourage entrepreneurism among Tennesseans or other who might come to our state.

The other sixteen issues received considerably lower scores, grading out at 90 for the fifth-ranked issue to a low of 24 for the issues ranking 19 and 20. Panel scores for all potential economic problem areas are shown in Table 2, along with the percentage of the panel designating that issue as one for concern.

PART IV
SOCIAL ISSUES OF THE NINETIES

At the suggestion of panelist Richard W. Cardin, a list of 16 social issues were presented to the panel for evaluation as continuing or emerging concerns for the 1990s. This is a feature reinstituted after a 16-year lapse. Table 3 shows the respondents' ranking of their choices for the most severe social problems of the 90s. While all of the 16 issues in the current survey are considered by many to be serious social problems of the 1990s, only two were ranked in the top five by over one-half of the panelists. Only seven were listed one to five by over one-third of the panelists (Column 3). These seven issues rated above 100 when weights of one to five were assigned to the rankings (1st ranked were multiplied by five, 2nd ranked were multiplied by four, etc.), multiplied by the frequencies and aggregated. These

TABLE 3
Respondents' Ranking of Selected Social Problems

		Percentage of Respondents	
Problem	Weighted Response	Ranking 1 to 5	Not Among Top 5
Illegal Use of Drugs	546	86.7	13.3
Family Breakdown	326	57.0	43.0
Inequality of Rural-Urban Education Opportunities	243	49.4	50.6
Rural and Intercity Poverty	204	44.9	55.1
Number of Chronic Unemployable	163	39.2	60.8
Environmental Pollution	145	34.8	65.2
Violent Crime	138	36.1	63.9
Lack of Child Care Services	93	21.5	78.5
Minority Group Unrest	91	20.9	79.1
Inadequate Care of the Elderly	79	21.5	78.5
Inadequate Health Care Services Delivery	78	18.4	81.6
Inadequate Street and Highway Conditions	71	20.3	79.7
Inadequate Housing	52	15.8	84.2
Inadequate Mental Health Facilities	17	5.7	94.3
White Collar Crime	14	4.4	95.6
Inequality in the Work Place	13	3.8	96.2

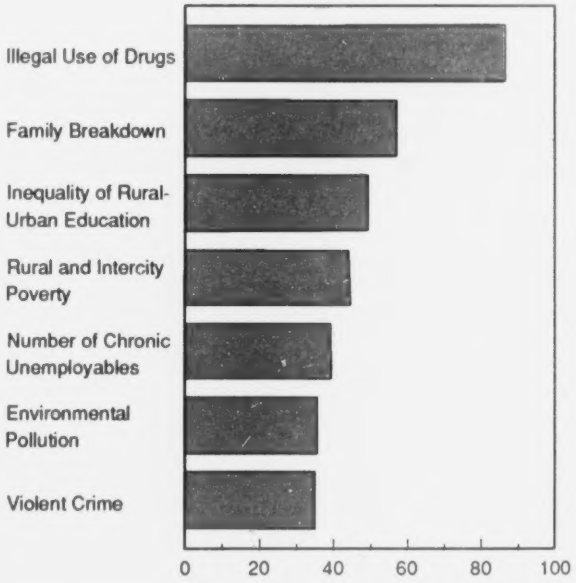
Note: The panelists were asked to rank the top five social concerns, in their view, from one to five.
Ratings were computed by assigning a five to a ranking of 1, four to a ranking of 2, etc., multiplying by the frequency and aggregating.

seven are further analyzed in Figure 17, where first through the fifth choices are shown by shading.

The illegal use of drugs far outdistanced the other 15 potential problems for the 1990s. Over one-third of the panelists viewed it as the number one social problem and 62 percent listed it number one or number two. In the words of one panelist, "Drugs are destroying this nation. It affects all areas of our lives. It causes problems in schools, adds to violent crime, and destroys the minds of our youth." Another said that illegal use of drugs is a "primary contributor to crime, family breakdown, child abuse, and loss of respect for law and for society."

Family breakdown and the use of drugs were considered by several panelists to be the "chicken-and-egg" example for the 1990s. However, the cause and effect relationship is not clear. Moreover, the view was often expressed in comments that these two issues (one or the other, or both) were responsible for much poverty, unemployment, crime, health problems, and such. Typical comments include, "It all begins with the family. Strong families lead to stability in our social system" and "Family breakdown leads to many other problems, such as poor attitude in the schools, drugs, crime, etc." Finally, "Although it's impossible to determine cause or effect, problems within the family lead to low self-esteem, which contributes to the problems of spouse or child abuse, substance abuse, chronic unemployability, criminal activity, school failure, poverty, apathy, homelessness, violence and just about any other social problem."

FIGURE 17
Respondents' Ranking of Seven Highest-Ranking Social Problems



Suggestions were freely offered that the family and the education system needed to be strengthened and drug users and pushers more severely punished, but no one seems to have specific methods to accomplish the desired results.

PART V
TENNESSEE HEALTH SERVICES ISSUES
by Sandra L. Putnam and Eddie S. Moore

The public interest in containing escalating health care costs has led to increased emphasis on the prevention of chronic disease and injury and to broadened health insurance coverage for the early detection and treatment of a range of physical, psychiatric, and addiction problems. The worksite is seen as an ideal location for promoting health-enhancing behaviors. But who should assume the burden of payment?

> **A West Tennessee Business Executive**: Many employers promote health courses for their employees that, properly carried out, can do more to promote continuing health and long life than the medical profession can provide. Medical care cannot overcome destructive habits. (Health courses have) tremendous possibilities for the individual and also can reduce one of the fastest growing costs the employer has.

In *For the Health of a Nation*, the report of the National Leadership Commission on Health Care, it was noted that in 1988, Americans spent over 11 percent of gross national product (GNP) on health care. By year 2000 these costs are predicted to triple, and the share of GNP to rise to 15 percent. In Tennessee, Medicaid expenditures in 1988 were 30 percent of the state budget, yet the problem of the medically indigent--those who lack health insurance and access to quality health care--is growing. To address these issues, the Health Services Research Center (HSRC) at The University of Tennessee Medical Center in Knoxville developed the questions and analyzed the data on corporate health-related issues for Part V of this report.[7]

PART V SURVEY OBJECTIVES

The objectives of Part V of the survey were as follows:

- To determine the nature and extent of employee health insurance coverage offered as a benefit by employers
- To determine the nature and extent of worksite health promotion programs and activities in surveyed organizations
- To determine what employers perceive as the major health problems in their industry, the extent of loss due to such problems, and their attitudes for preventing them
- To elicit respondents' attitudes concerning major health policy issues in corporate Tennessee.

MAJOR FINDINGS

Health Insurance Coverage

In this sample of 167 survey respondents, the overwhelming majority (97 percent) of organizations offer health insurance coverage to employees as part of a basic benefit package. Types of coverage most commonly included in each organization's health plan are, in descending order of frequency:

- Mental or psychiatric treatment (88 percent)
- Prenatal care (85 percent)
- Alcoholism and drug abuse treatment (77 percent)
- Dental care (61 percent)
- Choice of managed care or health maintenance organization (57 percent)
- Vision care (28 percent)

Cost of Health Benefits

To estimate the cost of health benefits paid by some Tennessee employers, respondents were asked the approximate percentage of total gross payroll allocated to employee benefits by their organizations in the previous year (including retirement, pensions, insurance, sick leave, and vacation time). Two-thirds reported the range from 20-39 percent of gross payroll as the cost of the total fringe package. For 13 percent, it was 40 percent and up, while 23 percent reported the percentage as under 20, with about half of the latter group reporting expenditures at under 10 percent.

When asked to estimate what percentage of their organization's total payroll comprises sick leave and health insurance benefits, specifically, 14 percent of respondents estimated it at 20 percent or more; 15 percent at 15-19 percent of payroll; 31 percent at 10-14 percent; 28 percent at 5-9 percent, and 12 percent at below 5 percent of payroll. A large number of respondents (38) failed to answer this question, suggesting the possibility that such information is not necessarily common knowledge.

Social Responsibility

Do employers have a social responsibility to provide basic health insurance for all classes of employees? Two-thirds of respondents answered "yes." Figure 18 shows the distribution of the most common reasons for agreeing and disagreeing with this statement.

Among the dissenters (n=41), the most common reasons given were the following:

(1) That health insurance is an individual's responsibility, not the employers' (31 percent).

An East Tennessee Service Sector Executive: Every person has a responsibility for his and his family's needs, including health needs.

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[7] The Health Services Research Center (HSRC) at The University of Tennessee Medical Center at Knoxville (UTMCK) is an interdisciplinary research center providing needs assessment, program planning, process and outcome evaluation, and grant writing services on topics related to the organization, delivery, financing, and quality of physical and mental health care. Rural health care, substance abuse and injury prevention, and health care for the poor, minorities, the uninsured and other vulnerable groups are areas of particular expertise.

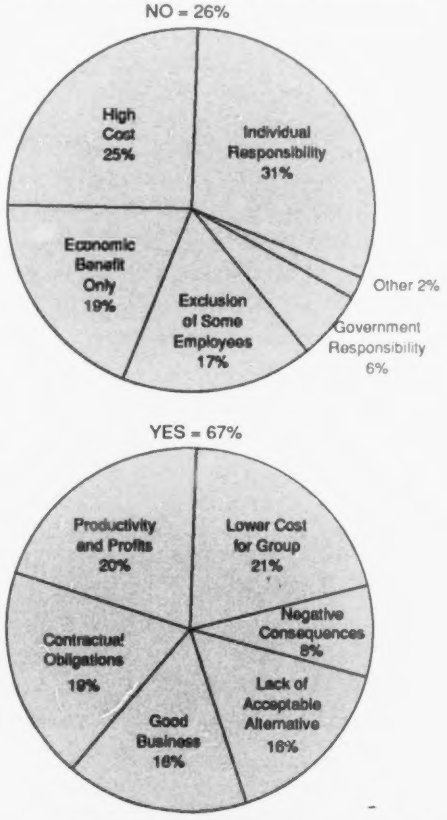
An East Tennessee Business Executive: Passing that responsibility to someone else (employer or government) results in increased costs.

A Middle Tennessee Service Sector Executive: Employers have a responsibility to pay fair wages for competitive work, [but] if employees wish to have the employer pay for health care and foregoe wages, it's their decision.

(2) That costs are too high (25 percent).

A Middle Tennessee Manufacturer: Costs are too high--people take advantage of company-paid programs, which causes premium increases and more uncontrollable overhead costs. In small competitive business markets, these costs must be shared.

FIGURE 18
Opinions Concerning Employers' Social Responsibility To Provide Employees' Health Insurance



Note: Seven percent had no opinion.

(3) That health insurance is an economic benefit, not a social responsibility (19 percent).

A West Tennessee Service Sector Executive: Health insurance is a benefit provided by employers in the competition for good employees.

An East Tennessee Service Executive: I think that employers have no more social responsibility to provide health care, via insurance, to any class of employees than they do to provide food, shelter and clothing. A gravitation to providing goods and services is in the direction of the old "company store" mentality which actually restricts employees and likely results from tax laws.

(4) that not *all* classes of employees should be covered (17 percent), particularly those who are part-time, seasonal, temporary, or in training.

A Middle Tennessee Trade Executive: Part-time employees who average less than 30 hours per week often do not have a significant attachment to the work force. Besides, benefits for them would be proportionately more expensive on a per-hour basis.

An East Tennessee Banker: Temporary, part-time, and/or low pay employees might never be hired if health insurance must be provided.

(5) That the government is or should be responsible for universal health insurance coverage (6 percent).

Panelists who feel that employers have a social responsibility to provide basic health insurance for all classes of employees provide the following rationales:

- Group coverage is more affordable (21 percent).

An East Tennessee Service Sector Executive: Individual insurance is unaffordable. Group insurance through employers, even if the employee is paying a portion, is at least attainable.

An East Tennessee Trade Executive: The employer can secure health insurance at a lower rate than the individual employee might be able to. I feel that in some companies insurance should be made available for all employees at group rates if the employee cannot afford to pay for it.

A West Tennessee Business Executive: Group plans provide insurability, availability and are less costly than comparable individual plans. Not providing the coverage would increase taxes, since the government would be providing the coverage.

- Increased productivity and profits from a healthy work force (20 percent)

A Middle Tennessee Government Leader: The general health of a company's workers has a tremendous impact upon the overall health of a company's bottom line.

A Middle Tennessee Trade Sector Executive: It is a cost of doing business. It is not an employee RIGHT, but if employees are to be productive and their employers competitive in the marketplace for both sales and profits, then benefits should be competitive and offered to all. If you pretend to compensate your employees, they will pretend to work.

An East Tennessee Service Sector Executive: If (this option were) left to the individual, most would not take out health insurance and would rely on government to take care of them. A healthy work force increases production, means less turnover and better morale, thus increased profits.

- Part of an employer's contractual obligation is providing for employee health and welfare (19 percent).

An East Tennessee Finance Executive: All workers have a right to health benefits for them(selves) and their families. (Providing benefits) should be an inherent obligation for the privilege of being an employer.

A Middle Tennessee Manufacturer: An employee should be able to depend on his employer to provide good wages and benefits. In turn, the company should expect a dedicated and efficient work force.

A Middle Tennessee Business Leader: If we make demands on people's time, efforts and abilities, we should help them maintain their physical and mental health.

- Good or customary business practice, the basic cost of doing business (16 percent).

A Middle Tennessee Service Sector Executive: Not only is it good business, it makes for better employer-employee relations.

- That other alternatives such as self-pay or governmental funding are not acceptable, feasible or as effective (16 percent).
- Concerns about actual negative consequences--that without basic insurance, the quality of health care would be lower and we would all pay (8 percent).

An East Tennessee Manufacturer: Sickness can cause the greatest financial loss to a family and can change family financial stability and living patterns to the detriment of the family unit--good employees are lost, hardships and dependency on state support are a consequence. We all pay in one way or another when this happens.

Worksite Health Promotion Programs

Since employee health promotion programs are designed to reduce sickness absenteeism and increase productivity and profits, respondents were asked to document the prevalence of such programs in their organizations by program subject matter. An employee health promotion program was defined as "any ongoing, organized, systematic opportunity for employees to improve their health status." Both organizational sponsorship (allocating funds) or actual conduct of such employee health promotion programs were included.

Figure 19 shows the results and demonstrates the variety and range of opportunities available to employees. No one type of program secured more than a 39 percent share of the organizations. There was a clear trend toward high prevalence of addiction-related programs, with employee assistance programs (EAPs), smoking cessation programs, and alcohol and drug abuse programs comprising the top three programs in terms of frequency. Exercise and fitness programs were sponsored or conducted by 36 percent of employers. The least frequent programs were those specific to particular conditions, such as back care or back problem programs, off-site accident prevention programs, weight control programs, and nutrition programs.

Perceived Serious Employee Health Problems

Health conditions seen as currently having the most adverse impact on each organization are shown in Figure 20. Family members' health problems and stress are the most frequently perceived serious health problems, followed by smoking, carelessness and inattention, and alcoholism and alcohol abuse. Chronic/long-term physical illness and disability and injury/accidents also rank high. At the other extreme, *no* respondents perceived drinking on the job as a problem among their employees, and very few felt that lack of hygiene or exercise, chronic or long-term mental illness and disability, or hangovers represent serious health problems.

Sickness Absenteeism

To determine the perceived toll that sickness absenteeism takes on their employees, respondents were asked to estimate the average daily percentage of the work force that was absent or on leave due to illness or injury during the preceding year. About two-thirds of the respondents estimated the sickness absenteeism rate at less than 4 percent, with 21 percent estimating it at less than 1 percent, and 47 percent at from 1-3 percent. Twenty-three percent estimated sickness absenteeism at from 4-6 percent, while 9 percent estimated it at 7 percent or higher.

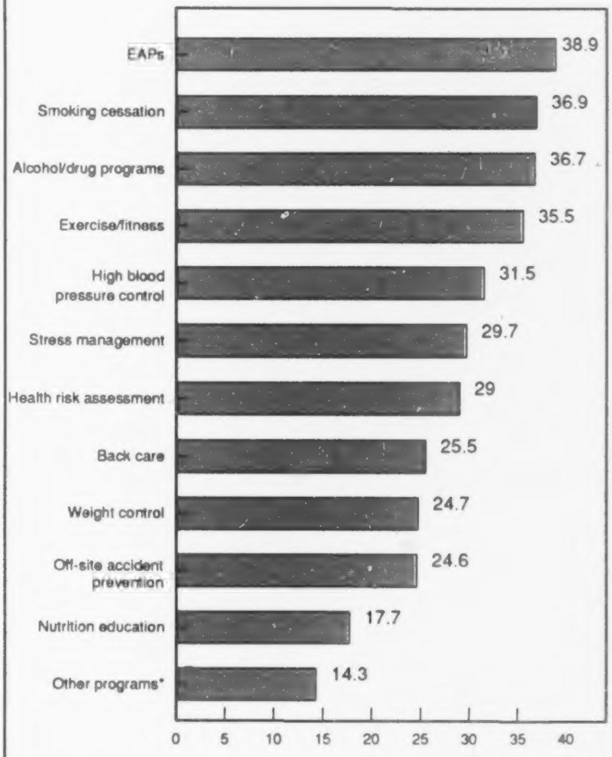
Workers' Compensation Claims

Regarding their concern about workers' compensation claims, most respondents favorably compared the level in their organizations with that of other similar industries or organizations. In 48 percent of cases, claims were considered *below* *average*, 30 percent were *average*, and 17 percent (26 organizations) were rated as *above average*. A striking 26 percent of cases (41 respondents) felt that claims by their employees were a cause of financial concern for their organizations.

Future Funding Alternatives

Concerning possible funding alternatives for financing health care in the future, most respondents (61 percent) favored a partnership among government, employers, and individual employees to share costs of universal coverage. Fourteen percent advocated major reliance on individual self-payment, with less involvement on government or employers. Twelve percent supported the maintenance of the *status quo*, despite the fact that one in four Americans are currently uninsured or seriously under-insured. Seven percent favored an increase in employer share, and 6 percent favored increased governmental funding.

FIGURE 19
Prevalence of Health Promotion Activities by Subject
(Percent)



*E.g., annual blood test, flu shots, mammography screening

The following statements represent the majority opinion favoring partnership:

A Middle Tennessee Banker: Government will and should continue to be involved for those who do not have the ability to pay. I believe it is important for individuals to share the cost with employers for several reasons, one being to reduce the abuse of the system.

A Middle Tennessee Banker: A partnership would encourage more economy by preventing waste and fraud. Ideally, physicians, hospitals, and the medical community would be participants as well.

A Middle Tennessee Trade Executive: No program will be effective UNLESS the individual is required to participate in the costs. Then, each individual will be more cognizant of his/her obligation to judiciously consider the tendencies to over-utilize medical services. Why? Simple. "Free" medical services are often over-utilized, since the recipient often feels that it is his/her "right" to run for medical treatment for every slight pain, scratch, bruise, etc. The recipient's share of costs should always be collected at the time of services. Then, the other payers will not be forced to shoulder unnecessary costs.

An East Tennessee Manufacturer: Funding must come from private enterprise. Individuals must share in the responsibility of providing for their needs. Government can set standards of service and encourage low cost delivery.

An East Tennessee Finance Executive: Business cannot handle this cost. They would price themselves out of the marketplace. If individuals share in the cost they might better control overuse and abuse. The government must help coordinate, but use insurance firms to help design and administrate.

In support of extending the self-payment option, one respondent had the following opinion:

A West Tennessee Business Leader: Medical costs have increased at a rapid rate in recent years and will continue with this course as long as the individual shifts the cost to the employer or to a government agency. Personal responsibility will bring out the best in the individual to avoid sickness and injury. It is the part of the government and the employer to provide the surroundings that assist in this accomplishment.

Maintaining the *status quo* was emphasized by one respondent:

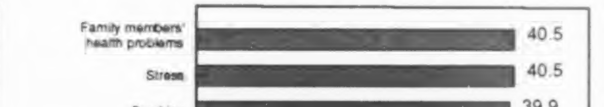
An East Tennessee Manufacturer: Basically, the system has proven it can work, but employers must continue to monitor and control program costs. Also, the employee must increase his or her share of the cost to develop a commitment to controlling total health care costs.

In direct contrast to the idea that government involvement increases costs were opinions favoring National Health Insurance for every citizen, paid by all taxpayers, and emulating the Canadian system as the best system of health care coverage.

Finally, respondents who preferred increasing the employers' share include:

A West Tennessee Finance Executive: Employers must provide care for their employees and the employees' families. The state's role should be minimal, with care provided only to the unemployed or indigent.

FIGURE 20
Health-Related Conditions Perceived as Having Most Negative Impact on Organizations[1]
(Percent)



[1] Respondents were asked to select no more than five conditions.

*Other health problems include lack of exercise.

Discussion

"Employers should do as much as possible to offset the high cost of health care" said a West Tennessee Service Sector Executive. This was a dominant theme among this group of employers and corporate leaders in Tennessee. They are conscientious about the extent to which employees have health insurance coverage, since virtually all provide such coverage as part of a basic benefit package, estimated as costing at 20-39 percent of gross payroll in the majority of cases. Sick leave and health insurance benefits were estimated at below 15 percent of the organization's payroll in most organizations. However, as one respondent pointed out, there is a difference between *paying for* and *giving access to* insurance through group rates.

A Middle Tennessee Manufacturer: The company should provide the best plan available, but not pay for it in its entirety.

A West Tennessee Manufacturer: Employees actually pay for their benefits, (since) benefit packages for many years have been negotiated with employers as part of employees' basic total wage. Wages have been adjusted accordingly.

Panelists believe that everyone pays for illness and injury through higher taxes and increased costs passed on to consumers. While coverage is costly for employers, most respondents felt responsible for providing basic health insurance to all classes of employees, some for social, humanitarian or economic reasons, and others to maintain a competitive advantage.

An East Tennessee Business Executive: Wellness of employees should be part of corporate philosophy. Higher productivity, lower health costs, and higher morale result.

The "healthy worker effect" seemed to prevail, with fairly low estimated rates of sickness absenteeism (most at less than 4 percent of the average daily work force). However, 17 percent of respondents viewed the level of workers' compensation claims in their organizations as excessive compared with other similar organizations, and another 26 percent expressed financial concern about their level. It is important that the most frequent types of coverage offered are the most effective in reducing losses to companies, including coverage for psychiatric care, alcoholism and drug abuse treatment, and prenatal care. Vision care, dental care and certain screening programs are less widely offered, usually because the latter are generally not too expensive for individual workers to pay for themselves.

Most of the employers surveyed acknowledged the value of providing or sponsoring health promotion activities for their employees. Seventy percent of organizations had one or more such programs. The most prevalent or frequent health promotion programs are among the most effective. These are EAPs (employee assistance programs), smoking cessation programs/policies, alcohol and drug abuse programs, and exercise and fitness programs. The least popular and common worksite programs are those concerning problems that seem to impact less on job performance, such as nutrition and weight control programs, or that seem to be less within the purview and control of the organization, such as off-site accident prevention programs (seat belt programs, for instance). Highly specialized programs such as back care programs are also less frequent.

It is important that a number of the health problems perceived as having the most negative effect on the work force are problems addressed, for the most part, by the most frequently sponsored health promotion programs. Family members' health problems are often brought to EAP counselors, as are alcoholism and alcohol abuse, carelessness and inattention, job stress, and other job performance problems. Although both smoking and stress are seen as major health problems, stress management programs are less frequently offered in these organizations. To some extent, stress is a catch-all concept, and much of its manifestation in job performance can be handled in EAPs rather than in separate stress programs.

While chronic physical illness and injury are seen as important health concerns, only 25 percent of organizations offer offsite injury/accident prevention programs. Denial is a possible factor in the antithesis between the respondents' belief that alcoholism and alcohol abuse are among the most prevalent primary health problems of their employees and their contradictory assessments that hangovers rarely impair employees' job performance and that none of their employees drink on the job. An alternative explanation is that, given only five choices of major health problems, alcoholism and alcohol abuse was the condition selected first by respondents to serve as proxy for other manifestations of the problem, such as hangovers and drinking on the job.

Conclusions

The prevention of disease and injury, together with their early detection and treatment through primary care, hold the key to cost containment in the U.S. medical care system.[8] Evidence is provided here that health promotion activities are abundant in the Tennessee organizations surveyed. However, new or additional programs are often needed, and barriers to health promotion activities need to be overcome. Such initiatives are feasible, because employers perceive these activities as positive, citing among the benefits improved health and productivity and reduced health care costs. Results of a national survey of worksite programs also indicate that —

> The employer, the employee, and the health community have strong incentives to implement worksite health promotion activities. The employer benefits because healthy employees are absent less, are more productive, and use fewer medical benefits. Enhanced company image, recruitment and morale are other reasons given for establishing health promotion activities. In addition to a safe work environment, employees gain direct access to services to improve their health at a convenient location, sometimes on company time with the company often paying for the service. The workplace offers health care providers an opportunity to affect the health practices of a significant portion of the population. Not only can employees be reached at work, dependents and retirees are also often accessible. Additionally, many health care providers see the worksite as a potential market for health promotion products or they may see health promotion activities as an avenue to reach clients for other products such as medical benefits.[9]

Although the worksite may be an ideal location for promoting health-enhancing behaviors, costs of prevention and early detection and treatment of conditions must be borne. In the opinion of respondents, a partnership among government, employers and individual employees is the preferred method for extending access to health care for the uninsured and the medically indigent, and for spreading the cost burden more equitably.

An East Tennessee Service Sector Executive: Health care is a critical national problem and both responsibility and cost must be shared if we are to survive.

An East Tennessee Service Sector Executive: It is too expensive for employers or individuals to pay the total cost. A working partnership is essential to meet reasonable health care standards. ■

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[8] "Prevention and primary care are the only sound long-term ways to remedy excessive, unnecessary spending on medical care. Prevention and primary care make sense for cost containment now." Anthony Robbins, "How to Control U.S. Health Costs," *Scientific American*, December 1989, p. 158.

[9] *National Survey of Worksite Health Promotion Activities: A Summary* ODPHP Monograph Series, U.S. Department of Health and Human Services Public Health Service, Summer 1987.

THE 1990 PANELISTS COMMENT

EAST

Utility Executive: We are attracting business from the northern U.S. and from other nations. Our work ethic is said to be a major attraction, (but) I don't know how long our good work ethic can overcome our low ranking in producing a trained work force. We must educate a higher percentage of our youth (and strive for) fewer dropouts.

Certified Public Accountant: Our strength (lies in having) a population of high work ethic citizenry. Unfortunately, our system is punishing the majority of this labor force by a system of regressive taxation, lack of services and inadequate pay. Resulting socioeconomic unrest will limit positive growth in 1990.

Trade Executive: Overall the economic outlook for Tennessee in 1990 should be just fair. There will be a period of adjustment--letting demand catch up with supply in areas of residential and commercial construction. Manufacturing, which depends so much on the automotive industry, will probably be down in 1990.

Manufacturer: Tennessee will continue to benefit from economic development gains of recent years, but will not truly reach its potential until it gets its educational system up to a competitive level statewide.

Financial Consultant: We still have the right kind of folks--those that expect to earn more than they make, so business can grow and expand. Our location is a real strength. The weakness? Education. Our tax basis must be such that we can open, operate and educate without the uncertainty being faced by so many of our school districts today.

Business Leader: Tennessee's overall economy will not match other Sun Belt states but should be better than many of the northern-midwestern states. Governor McWherter has done a good job on promoting growth, and his continued dedication to education and growth should entice companies to expand and others to relocate in Tennessee.

Utility Executive: An educated workforce is needed for global competition. We need to restore discipline in the schools and provide quality education for the kids who want it. That leaves us with the problem of those who don't.

Manufacturer: Economic slowdown in the Northeast and Midwest should make Tennessee an attractive location for businesses looking for available labor and a low-cost manufacturing base.

Banker: Generally the outlook is relatively good. Some of the real estate problems we have had in some of our metropolitan areas will begin to be solved. Employment will be relatively stable for us. Education will continue to be a problem, but solutions will begin to be put in place to improve it. The legislature will be a mixed bag. Some of the ethics problems may tend to overshadow (positive aspects).

Business Leader: Tennessee will suffer along with other states if there is a national recession, as I anticipate. However, Tennessee's state and local government financial conditions are much better off than many others (New York, Michigan), and this should help cushion the blow somewhat here.

Media Executive: Service areas are growing; however, white collar jobs are shrinking. Our unemployment figures are misleading. As lower paying jobs (replace) lost white collar jobs, the economy will be negatively impacted.

Business Leader: Tennessee lacks the quality of education and social programs that are needed to be a leader in economic growth in the Southeast. Although this is a long-term problem rather than just (a problem for) 1990, it certainly impacts the near term also.

Business Consultant: 1990 should be another good year for Tennessee because of the general health of the economy, the geographic location of the state to serve the eastern markets, and the relatively good image of the state nationally.

MID

Educator: Overall (there will be) few dramatic changes in Tennessee. We will have to deal with the issues of worker availability, basic skills, the environment, transportation and economic well-being if we are to stay healthy.

Manufacturer: For 1990, Tennessee's economy will be flat. Strength–strong work ethic. Weakness–overbuilt real estate.

Service Executive: We are probably entering a "catch-up" period after the rapid growth of the past 5-6 years. Our major weakness is in education and training. The widespread attention not withstanding, we're making progress slowly. Lifestyle is our major plus, if you discount education.

Banker: The consumer debt level should constrain demand. Profits will shrink and cause a business retrenchment. The Fed's "Soft-Landing" policy will hit manufacturing and construction especially hard.

Utility Executive: Tennessee must improve the transportation system as rapidly as possible to avoid very serious near-future weaknesses. This is true for both surburban and rural areas. People must have a way to commute to enhance future expansion. Tennessee must also be careful of not becoming as closely involved with the single auto industry as it once was with textile industry.

Manufacturer: The outlook is good. We are benefiting fromthe initiatives of Governor Alexander's administration (jobs-education, roads, etc). Fortunately, Governor McWherter is continuing the programs and focus. However, we are still not doing nearly enough in the area of education–K-12 or higher education. My concern is that we are not proceeding with the vigor we saw during the Alexander terms.

Business Leader: I expect 1990 to be a good year for Tennessee. There is generally a good supply of workers at reasonable wages. However, I do believe Tennessee must improve its economic

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development activities to stay competitive with other states to attract business.

Trade Executive: We will continue to "ease along" in 1990. TVA electrical rates have stabilized, but there are blips to be seen on the interest rate screen from time to time. Foreign investment will complete its stakeout of Post-1992 European markets and begin to reexamine Tennessee--mostly for political reasons. Overcapacity in the auto industry will start to adversely affect Tennessee in 1991. We still have not diversified Tennessee's manufacturing base enough to avoid sensitivities to wide swings in interest rates and their adverse effects on the automobile and housing sectors. Tennessee remains an interest-rate-sensitive state.

Manufacturer: The overall outlook for Tennessee is very positive. My concern is ownership by foreign concerns of U.S. industry.

Trade Executive: Tennessee will feel a general slowdown in consumer spending activity as in other areas. Weakness in the automobile and other big ticket purchases will create a mild recession.

Manufacturer: Migration of skilled workers and feeder supply facilities to the automotive industry will improve the economic outlook for Tennessee for the next four of five years. Supply and demand for skilled workers will dictate improved earnings for all lower-to-middle-income families.

Business Leader: As Tennessee continues to make the transition to a higher value-added production and service base, more value must be added to Tennessee workers to enable them to compete for the skilled trade jobs most in demand.

Banker: Our industrial employment sector is stronger, but our agriculture employment sector is weaker. Middle Tennessee should be stronger than East or West, but only due to the Saturn and Nissan expansions.

WEST

Manufacturer: Tennessee is in an excellent position to attract new business to support the auto industry. The state government attitude is very positive and is willing to work with businesses. However, the demand for skilled people with good basic education is greater than the supply, which creates a pirating of good people. We must create a desire in the people who are not skilled or educated to put some effort into getting educated. The state, along with business, must see that we provide the educational opportunities.

Finance Executive: Tennessee will continue to gain on our neighbors and other sections because our shortcomings are not as severe as theirs. We are extremely well placed geographically. Our greatest weakness is the large numbers of adults incapable of becoming truly skilled workers, because of inadequate basic education. The federal deficit remains my number one concern.

Business Leader: I think our push overseas to attract industry to Tennessee, and our interchange with students (in the long run) is helping Tennessee comparatively. Our biggest problem is people-based. We are not educating our young people well enough, and we lose far too many of our brightest minds to other states.

Service Executive: Tennessee will continue to do well. We are strategically located, making us ideal for manufacturing and distribution. Labor is better than most areas. However, we could improve our basic education.

Finance Executive: I think Tennessee's economy will be stronger than the national economy in 1990. My concerns are in managing the economic differences in the rural and urban areas. The second most important issue is probably reconciling the tax issues.

Manufacturer: The agricultural sector continues to improve and farm prices increase faster than do associated costs. Industrial operations will be affected by a recession either real or perceived.

Manufacturer: The Tennessee outlook for 1990 should be down slightly. The automotive slowdown is having an impact nationwide. Farming commodities are also down, which indicates a slow period for agriculture. Construction of business and industry will be up in 1990 in Tennessee.

Manufacturer: The overall outlook is good. State leaders must continue pressing for additional businesses to locate here. Our attributes include location, transportation, and a good work ethic. These must be continually enhanced and publicized to attract prospects.

Service Executive: Tennessee needs professional leadership in the field of economic development. Tennessee will always come in second or third until a professional statewide marketing program to create capital formation jobs is put into practice. We have a hot spot for growth because local leadership helps at the state level.

Business Leader: The outlook is "up" primarily because of new businesses locating and expanding in Tennessee in 1990. Other than that impact, the overall outlook will remain about the same for 1990, at least for the first half.

Finance Executive: Tennessee's overall outlook is good. The defeat of the UAW at Nissan sent an important message: labor and management can work out problems without a third party, whose purpose is served by divisiveness. However, Tennessee is a relatively poor state economically.

Trade Executive: Most economic indicators indicate we may be in for a mild recession in 1990. Automobile sales and production, for example, are expected to decrease. In addition, the real estate market in Memphis and Nashville seems to be oversupplied.

Business Leader: The burdens being placed on business by Congress and the legislature are becoming unbearable. Profits must shrink from them, and prices must be raised. It doesn't seem to get any better. I think the Tennessee economy will slightly decline in 1990.

THE U.S. ECONOMIC OUTLOOK

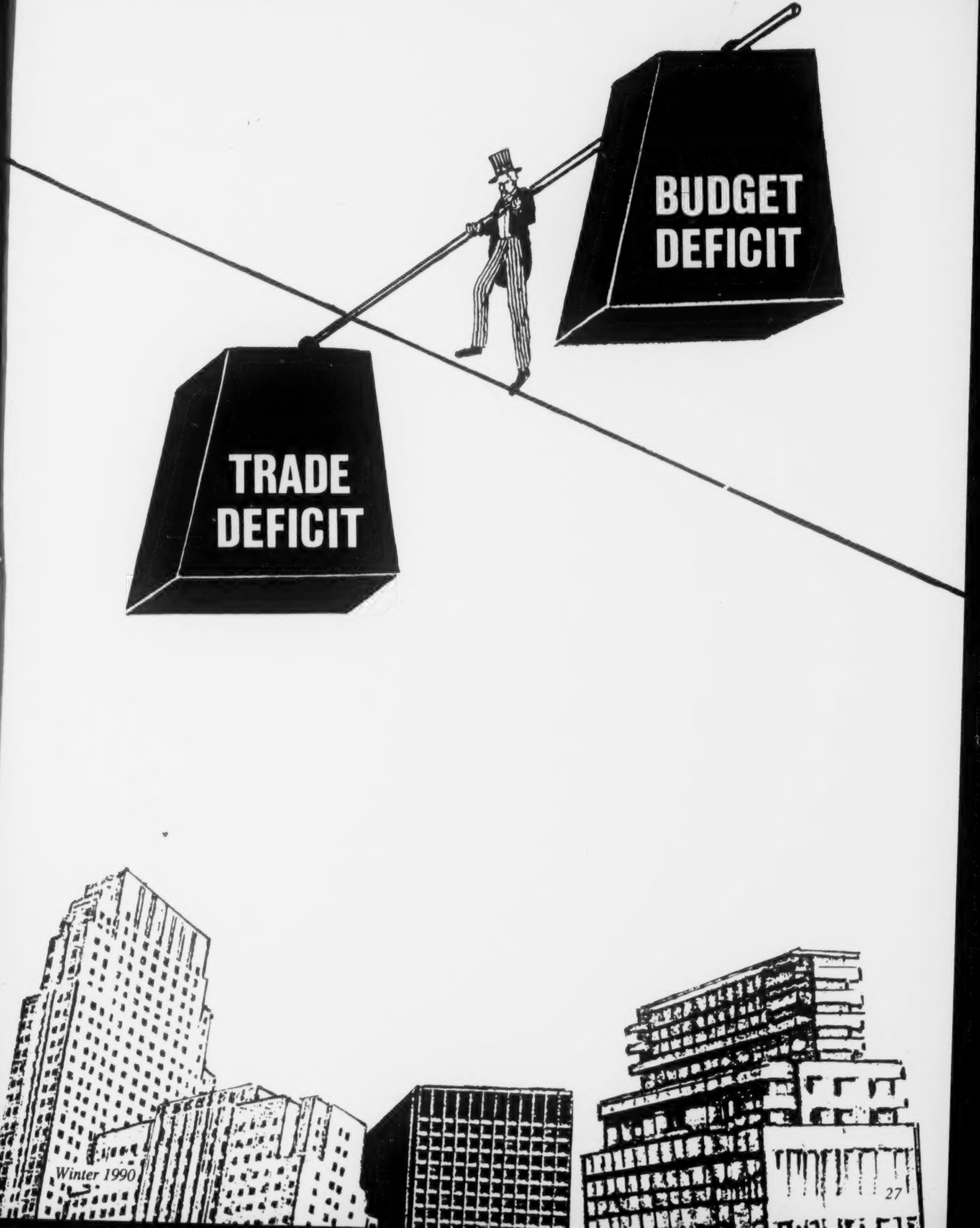
by John W. Mayo

While the economy appears to be rather soft at the present time, there are no imminent signs of recession for 1990. Beyond 1990, however, there is considerable uncertainty about a sustained national economic expansion.

The 1980s have seen unprecedented swings in inflation, the deepest recession since the Great Depression, budget and trade deficits of historically unprecedented levels, the U.S. shift from the largest creditor nation in the world to the largest debtor nation, a doubling of the national debt, and the longest economic expansion since World War II.

Where do all these changes leave the economy as it prepares to head into the 1990s? Can the economic expansion that began in early 1983 continue during the 1990s, or have the seeds been sown for a substantially different economic outlook during the next decade? In this article, we set the stage for the Tennessee-specific outlook by examining the national economic developments that have occurred and those that are likely to unfold as we head into the 1990s.

Because an exhaustive examination of the developments of the 1980s is beyond the scope of this analysis, we instead identify several key developments that not only have affected economic activity during the past decade but are likely to remain with us for the foreseeable future. These highlights include the impact of the 1982 recession, the growing importance of the international trade sector, and developments in the federal budget. Then follows a detailed review of 1989 and the prospects for economic activity in the early 1990s. We find that while the economy appears to be rather soft at the present time, there are no imminent signs of recession for 1990. Beyond 1990, however, there is considerable uncertainty


BUDGET DEFICIT
TRADE DEFICIT

about a sustained national economic expansion.

The 1980s

The 1980s began on a dismal economic note and will end on a positive, but not overwhelming note. In between, a variety of economic phenomena have occurred that changed not only the immediate economic situation but also prospects for continued economic growth. Here, we highlight three such phenomena, beginning with the 1982 recession.

The 1982 Recession

After the U.S. has experienced almost seven years of sustained economic growth, the 1982 recession may seem little more than a historical curiosity. Its impact on the economic landscape, however, was significant not only in 1982, but continues today. Specifically, the 1982 recession was by far the deepest economic downturn since the Great Depression of the 1930s. Over the 1982-1983 period, an average of 10.7 million Americans were unemployed, while another 1.6 million discouraged workers had simply given up on the search for employment. In total, over 12 million Americans who either had been or could be gainfully employed found themselves out of work. The economic losses associated with such massive unemployment are staggering. Aside from the personal hardship and degradation imposed on the unemployed, the foregone output caused by unemployment is considerable. For instance, Professor Alan Blinder of Princeton University has estimated that if the unemployment rate during 1983 had been 5.8 percent (the level that prevailed in 1979) instead of 9.6 (the 1983 average), over seven million more people would have been employed and gross national product would have been 9 percent higher. The value of the additional output that could have been created by the unemployed amounted to $1,350 for each man, woman, and child in America.

While it has been seven years since the 1982 recession, several by-products of this recession still linger today. For example, in Table 1 we see that the inflation-adjusted median family income took a severe hit during the early 1980s. Because of the anemic economy of the early 1980s, it took until 1987 to restore median family income to its 1979 levels for the cross-section of all families. And for black families, the restoration to income levels achieved during the 1970s has yet to occur. Also, the tremendous weakness in the national economy in the early 1980s has led to lingering impacts on poverty levels in the United States. In Table 2, we see that both the absolute number and the percentage of people living in poverty increased considerably in the early 1980s. Despite the long economic expansion, neither the absolute number nor the percentage of people living in poverty has yet declined to the lower levels achieved during the 1970s. Moreover, while the severity of the 1982

TABLE 1
Median Family Income, 1979-1987
(In Constant 1987 Dollars)

	All Families	White	Black
1979	30,669	32,003	18,122
1980	28,996	30,211	17,481
1981	27,977	29,388	16,578
1982	27,591	28,969	16,011
1983	28,147	29,474	16,610
1984	28,923	30,294	16,884
1985	29,302	30,799	17,734
1986	30,534	31,935	18,247
1987	30,853	32,274	18,098

Source: *Statistical Abstract of the United States 1989*, 109th Edition, U.S. Department of Commerce, Bureau of the Census.

recession is apparent in aggregate statistics, the scars from this period are most evident when more disaggregated data are examined. For example, the percentage of blacks in poverty grew from just over 31 percent in 1979 to 35.7 percent in 1983. Since 1983, the percentage of blacks living in poverty has fallen, but remains in excess of 31 percent, approximately the same as in 1980.

Finally, the 1982 recession accentuated and exacerbated a dramatic shift that had begun more than two decades earlier away from manufacturing employment. In Table 3, we see that while the total nonagricultural job growth has been brisk for the last decade, rising from 87 million to 102 million, the total number of people employed in the manufacturing sector has declined. After

TABLE 2
Persons Below The Poverty Line, 1979-1987
(In Millions)

	All	White	Black	Hispanics	% All
1979	26.1	17.2	8.1	2.9	11.7
1980	29.3	19.7	8.6	3.5	13.0
1981	31.8	21.6	9.2	3.7	14.0
1982	34.4	23.5	9.7	4.3	15.0
1983	35.3	24.0	9.9	4.6	15.2
1984	33.7	23.0	9.5	4.8	14.4
1985	33.1	22.9	8.9	5.2	14.0
1986	32.4	22.2	9.0	5.1	13.6
1987	32.5	21.4	9.7	5.5	13.5

Source: *Statistical Abstract of the United States 1989*, 109th Edition, U.S. Department of Commerce, Bureau of the Census.

TABLE 3
Employment In Nonagricultural and Agricultural Establishments
1978-1987
(In thousands)

		Nonagricultural			Agricultural
		Selected Sectors			
Employees	Total	Manufacturing	Wholesale & Retail Trade	Services	Total
1978	86,697	20,505	19,542	16,252	10,982
1979	89,823	21,040	20,192	17,112	10,598
1980	90,406	20,285	20,310	17,890	10,501
1981	91,156	20,170	20,547	18,619	10,886
1982	89,596	18,853	20,457	19,064	11,598
1983	90,200	18,434	20,881	19,694	12,310
1984	94,496	19,378	22,100	20,797	12,206
1985	97,519	19,260	23,073	22,000	11,337
1986	99,525	18,965	23,683	23,053	11,778
1987	102,310	19,065	24,381	24,196	11,867

Source: *Statistical Abstract of the United States 1989*, 109th Edition, U.S. Department of Commerce, Bureau of the Census.

hitting a peak employment of 21 million in 1979, the recession of 1982-1983 dropped manufacturing employment to 18.4 million. Despite the subsequent economic expansion, manufacturing employment continues to be less than in the late 1970s.

In conclusion, the depth of the 1982 recession has left a legacy of reduced family incomes, higher poverty levels, damaged economic status of historically disadvantaged groups, and decreased job opportunities in the traditionally high-paying manufacturing sector. In time, economic growth should overcome these setbacks. Nevertheless, the economic costs imposed by the recession of the early 1980s were considerable and remain noticeable as we head into the 1990s.

TRADE
DEFICIT

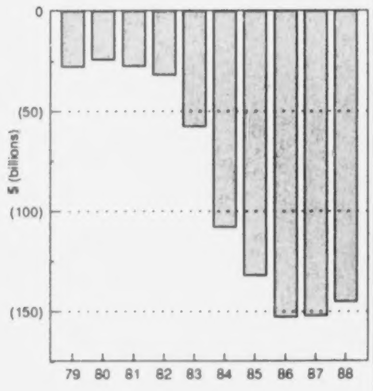
Globalization, Competitiveness, and the Trade Deficit

A hallmark of the economic structure of the major world economies during the 1980s has been the increasingly global nature of markets. This globalization is reflected in both economic statistics and casual empiricism. Today it is routinely possible for Americans to purchase automobiles from Japan, Sweden, Germany, Korea, Yugoslavia, and Italy. We purchase shoes from Brazil, Italy, Korea, Singapore, Spain, and so on. Similarly, goods and services from the United States compete for sales in nearly every major foreign country throughout the world.

Along with this increasingly global nature of markets has come a deterioration in the United States' balance of trade with foreign countries. In Figure 1 we see the level of the trade balance for the United States for the decade of the 1980s. The decade began with a merchandise trade deficit of $22 billion in 1980 and grew to a peak of nearly $160 billion in 1987 before retreating to the current range of $130 billion. When the trade deficit began to swell in the early 1980s, the cause was largely attributed to a rising dollar in international exchange markets. As a result, it was hoped that the trade imbalance would be temporary and self-correcting. When the value of the dollar peaked on international exchange markets in early 1985 and trade balances continued to deteriorate for the subsequent three years, a widespread concern began to surface that America had lost its "competitiveness" in world markets. A flurry of academic and policy studies and hearings were conducted, and very few definitive conclusions emerged. Trade bills were passed, however, that have given greater latitude for the United States trade authorities to bring pressure on foreign powers to open their markets to U.S. goods and services.

The trade deficit of the 1980s has caused a number of economic dislocations and opportunities that are likely to persist into the 1990s. However, these dislocations and opportunities are not uniform across industries and have the potential to generate considerable economic disruptions. For instance, a recent study of trade flows during the 1980s identified the various manufacturing sectors that are most vulnerable to imports (i.e., are least protected by economic, governmental, or technological trade barriers). In Table 4 the list of the 30 most vulnerable domestic manufacturing industries is shown. Notice that the list is dominated by various footwear, apparel, and leather industries. Thus, to the extent that a regional economy (e.g., Tennessee) is dependent on such industries for employment opportunities, the risk of job loss to imports is likely to remain quite high during the 1990s.

FIGURE 1
Merchandise Trade Deficit



Source: The WEFA Group, U.S. Long-Term Economic Outlook, Third Quarter, 1989, Vol. I.

Federal Fiscal Policy

During the 1980s significant changes occurred in federal fiscal policy that not only affected the economic climate during the past decade, but will also be felt during the 1990s. Specifically, beginning with the 1981 federal tax cuts, the federal budget deficit began to skyrocket. The large tax cuts were predicated upon the notion that income tax revenues would rise with reduced rates. While this idea was widely discredited by economists, it proved to be a politically popular vehicle for tax reductions. In the years immediately following the tax cut, it was argued that the large budget deficits were the result of the weak economy of the early 1980s. Accordingly, once the economy began to grow, it was argued the deficit would be

TABLE 4
U.S. Manufacturing Industries Most Vulnerable To Imports

Rank	SIC*	Industry Description
1	3636	Sewing Machines
2	3263	Fine Earthenware Table and Kitchen Articles
3	3151	Leather Gloves and Mittens
4	2121	Cigars
5	3149	Footwear, except Rubber, n.e.c.
6	3144	Women's Footwear, except Athletic
7	3142	House Slippers
8	3021	Rubber and Plastics Footwear
9	3143	Men's Footwear, except Athletic
10	3581	Automatic Merchandising Machines
11	2369	Girls', Children's and Infants Outerwear, n.e.c.
12	3911	Jewelry, Precious Metal
13	3961	Costume Jewelry and Costume Novelties, except Precious Metal
14	2331	Women's, Misses' and Junior's Blouses, Waists and Shirts
15	2252	Hosiery
16	2391	Curtains and Draperies
17	2321	Men's, Youths', and Boy's Shirts and Nightwear
18	2381	Dresses and Work Gloves, except Knit and All-Leather
19	2341	Womens', Misses', Children's and Infants Underwear and Nightwear
20	2386	Leather and Sheep Lined Clothing
21	3269	Pottery Products
22	3732	Boat Building and Repair
23	3199	Leather Goods, n.e.c.
24	3172	Personal Leather Goods, except Women's Handbags and Purses
25	2389	Apparel and Accessories, n.e.c.
26	3915	Jewelers' Findings, Materials, and Lapidary Work
27	3931	Musical Instruments
28	2352	Hats and Caps, except Military
29	2337	Women's, Misses', and Junior's Suits, Skirts, and Coats
30	2771	Greeting Card Publishing

Note: n.e.c. = not elsewhere classified.
* Standard Industrial Code.
Source: Clark, Kaserman, and Mayo (forthcoming), supra.

eliminated. Now, after economic growth for seven years and a sustained budget deficit still well over $100 billion, it has become clear to even the most casual observer that the federal budget deficit is *structural* rather than *cyclical*. Economic growth simply will not, in the foreseeable future, eliminate the federal budget deficit. Moreover, despite the hoopla that surrounded the passage of the Gramm-Rudman-Hollings Balanced Budget Act, the baseline policies necessary to achieve a balanced budget have not been put in place. Indeed, in its most recent analysis and projection of the budget outlook, the Congressional Budget Office (CBO) stated:

> The projected deficits far exceed the targets of the Balanced Budget Act, commonly known as Gramm-Rudman-Hollings .... In 1990, the current focus of policymakers' attention, the baseline deficit exceeds the $100 million target by more than $41 billion. In 1993, according to the act's requirements, the budget is to be balanced; instead, the projected deficit under current policies is $143 billion.

The CBO projections of federal revenues, outlays, the deficit and the national debt are given in Table 5.

The baseline budget deficit projections, together with the mandatory budget deficit reduction targets imposed by Gramm-Rudman-Hollings (GRH), are certain to create friction in the federal budgeting process in the years to come. The policy options available to address the structural budget deficit are, by this time, almost as well-known as they are unpalatable: (1) raise taxes; (2) abandon the goal of a full-employment balanced budget (by repealing GRH); (3) sharply curtail the growth in defense expenditures; (4) continue to move various expenditures (such as the savings and loan bailout) off budget; (5) continue to sell government-held assets; and/or (6) continue to make deep cuts in discretionary

TABLE 5
CBO BASELINE PROJECTIONS OF REVENUES, OUTLAYS, DEFICIT, AND DEBT
(By fiscal year, 1990-1994)

	Actual 1988	Base 1989	Projections 1990	Projections 1991	Projections 1992	Projections 1993	Projections 1994
	In Billions of Dollars						
Revenues	909	991	1,071	1,138	1,207	1,287	1,372
Outlays	1,064	1,152	1,212	1,282	1,348	1,430	1,500
Deficit	155	161	141	144	141	143	128
Deficit Targets	144	136	100	64	28	0	(a)
Debt Held by the Public	2,050	2,196	2,338	2,481	2,621	2,762	2,890
	As a Percentage of Gross National Product						
Revenues	19.0	19.3	19.6	19.5	19.4	19.3	19.3
Outlays	22.3	22.4	22.2	22.0	21.7	21.5	21.1
Deficit	3.2	3.1	2.6	2.5	2.3	2.1	1.8
Debt Held by the Public	42.9	42.7	42.8	42.6	42.1	41.5	40.7
Reference: GNP (In billions of dollars)	4,780	5,138	5,463	5,826	6,225	6,652	7,108

a. The Balanced Budget Act set deficit targets only through fiscal year 1993.
Source: Congressional Budget Office.

non-defense programs. While some combination of these federal policy options seems most likely, virtually all the options will take time to unfold, and as a result federal fiscal policy will remain "exposed" as we head into the 1990s. The clear consequences of this exposure will be a reduced ability to respond at the federal level to national economic downturns and continued reductions in federal aid to state and regional economies.

1989 and Beyond

When evaluated at the most aggregate level, 1989 was a year of modestly reassuring economic performance. For the year, real GNP growth should be just under 3.0 percent. While down from the 4.4 percent growth of 1988, this growth rate has certainly been sufficient to extend the current economic expansion through 1989. Other aggregate indicators of the economic health of the U.S. economy in 1989 are also likely to be modestly encouraging. National employment growth will be roughly 2.8 percent for 1989, down from 3.3 in 1988, but still respectable. Capacity utilization in the manufacturing sector will on an annual basis, creep up to 84 percent, following its upward trend during the economic expansion. The annual inflation rate for 1989 will in all likelihood be up from 1988, though not by much. The 1989 inflation rate, as measured by the Consumer Price Index, should be just under 5.0 percent, up from 4.1 percent in 1988. While reductions in the prime interest rate toward the end of 1989 held interest rates down a bit, they were, overall, higher in 1989 than in recent years. The annual average interest rate for three-month Treasury bills will be in excess of 8 percent in 1989.

While there is nothing ominous in these aggregate economic statistics, a more detailed examination of the components of economic activity provide very mixed signals for the period beyond 1989. For instance, the economic expansion that, since 1983, has been fueled by robust growth of consumer expenditures, has recently experienced some softness in this sector. After growing at an inflation-adjusted annual average of 2.8 percent in the last half of 1988, consumer spending growth fell to only 0.6 percent in the first quarter of 1989 and 0.1 percent in the second. While a more rapid growth rate of consumer spending occurred in the third quarter of 1989 (5.8 percent), most indications are that this surge is the result of rebate-led purchases of automobiles. If, as is widely anticipated, the third quarter surge in automobile purchases is followed by a commensurate drop in fourth quarter auto sales, consumer spending is likely to *fall* as we head into 1990. Because consumer spending constitutes roughly two-thirds of all economic activity, the continuation of the current economic expansion will depend vitally on the performance of consumer spending during 1990 and beyond. While it would be premature at this point to claim that a downturn of consumer spending is imminent, the teeter-totter performance during 1989 raises questions about the robustness of consumer spending as we head into the 1990s.

Because consumer spending constitutes roughly two-thirds of all economic activity, the continuation of the current economic expansion will depend vitally on the performance of consumer spending during 1990 and beyond.

Similar "vulnerabilities" of other major components of GNP also surfaced during 1989. Specifically, the slowdown in consumer spending during the first half of 1989 led to repercussions in the investment sector during the last half of 1989. The latest survey of capital spending plans by businesses reveals that, after growing real expenditures on plant and equipment spending in early 1989, the clear expectation is that capital spending will decline in late 1989. Moreover, despite an apparent rebound of consumer spending during the third quarter of 1989, this weakness in capital is expected to dominate the investment picture during 1990.

Federal fiscal policy has been and is likely to continue to be more of the same for the near term. Despite the budget deficit reduction targets established by GRH, the expectation is that the federal deficit will remain over $100 billion for the foreseeable future (see Table 5). Government purchases (net of inflation) are expected to grow in the 1.5 percent range between 1990 and 1992.

Finally, the strong dollar of late 1989 has slowed export growth in the most recent data available. During the third quarter of 1989 exports were flat, while imports increased at a .5 percent seasonally-adjusted annual rate. The expectation is that after two years of considerable improvement, the international trade deficit will improve only modestly, if at all, during 1989-1990. Expectations of increases in the real price of imported oil in the 1991-1992 period suggest a modest deterioration in the trade deficit during this time frame.

In summary, the recent aggregate economic picture has been one of mild expansion and modest inflation. No known major economic events loom on the horizon to definitely alter the outlook for more of the same. At the same time, no individual sector of the economy has shown the sort of contagious energy that was observed in the mid-1980s. As the Wharton Econometric Forecasting Associates (WEFA) recently stated:

> In some respects, the current expansion can be likened to a relay race, where each sprinter passes the baton on to the next. As one sector of the economy began to tire, another sector took the baton and kept running. We now find ourselves in the predicament where all of our runners have tired, and the best that we can hope for in the quarters ahead is a brisk walk.

In light of these considerations the expectation is that real economic growth, as reflected by changes in the inflation-adjusted GNP, will be a very modest 2.0 percent in 1990. While our expectation is for this modest growth, the possibility of continued weakness in consumer spending, investment and international trade cannot be ruled out. Under such a scenario, 1990 would experience a mild recession. For the subsequent years of 1991 and 1992, we expect a modest increase from 1990 levels, with GNP growth rates of 2.5 to 3.0 percent. Employment growth will also be quite modest during the early 1990s, ranging from 1.6 to 2.0 percent. The overall softness of the economy during the early 1990s, combined with an accommodating Federal Reserve Board, should lead to small declines in interest rates for the near to mid-term. ■

ECONOMIC OUTLOOK FOR TENNESSEE

by David M. Mandy and William F. Fox

Agriculture Report
by Burton C. English and W. Robert Goodman

Slow employment growth in manufacturing (especially nondurables), federal government, and construction, as well as slower metropolitan area growth, have led to a broadly based slowdown in all sectors of Tennessee's economy.

While Tennessee's economy normally follows national trends, several factors have combined recently to make the economic outlook for Tennessee significantly different from the national outlook. For example, economic indicators for Tennessee show that the state is experiencing slower growth than the U.S. average. There are several reasons for this relatively sluggish performance. First, a more valuable dollar has made it difficult for Tennessee manufacturers to export their products and has made foreign products relatively less expensive. Second, federal government employment has been scaled back in Tennessee. Third, higher interest rates and tax reform have resulted in less construction activity. Finally, less dynamic growth in Tennessee metropolitan areas has reduced statewide growth.

Slow employment growth in manufacturing (especially nondurables), federal government, and construction, as well as slower metropolitan area growth, have led to a broadly based slowdown in all sectors of Tennessee's economy.

The slowdown is illustrated in Figure 1, which compares sectoral employment growth in 1987 to annual growth rates for the second quarter of 1989. Slower growth in manufacturing, federal government, and construction are readily apparent. However, this lethargy has spilled over into the large services and trade sectors, as well as the finance, insurance, and real estate (FIRE) and transportation, communications, and public utilities (TCPU) sectors. All of these sectors are experiencing significantly slower employment growth than in 1987.

Current Developments

Manufacturing

It is well known that relative employment has shifted away from manufacturing and toward the services and trade sectors in both Tennessee and the U.S. Figure 2 documents the magnitude of the change that has occurred in Tennessee, and reveals several interesting observations about Tennessee's industrial shifts. First, the change from manufacturing to services and trade is not a recent phenomena. It began in earnest in 1967 and has continued steadily for over twenty years. Second, the shift has occurred primarily in nondurable manufacturing. Durable manufacturing employs roughly the same proportion of people now as in the early 1960s, although it employed a larger proportion of Tennesseans during the interim. However, nondurable manufacturing decreased from a high of 21.8 percent of total nonagricultural employment in 1962 to only 12.4 percent in 1988. Nondurable manufacturing was a very large part of the Tennessee economy in the 1960s, but it is now about the same size as the durable manufacturing sector. Both of these sectors employed fewer people in 1988 than each of the trade, services, and state and local government sectors.

FIGURE 1
Tennessee Nonagricultural Employment Growth by Industry
1987 and 1989/Q2

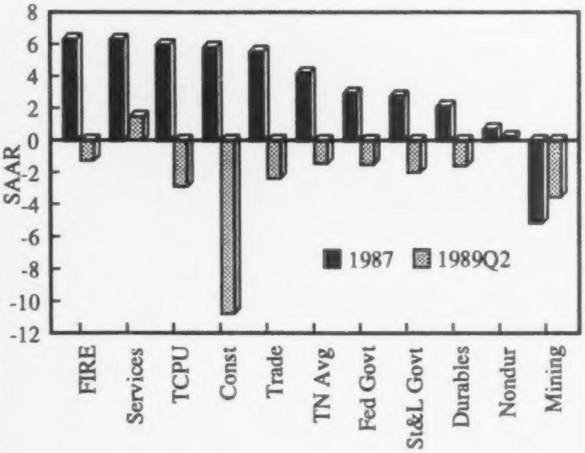


FIGURE 2
Tennessee Nonagricultural Employment
by Sector as a Percent of Total Employment

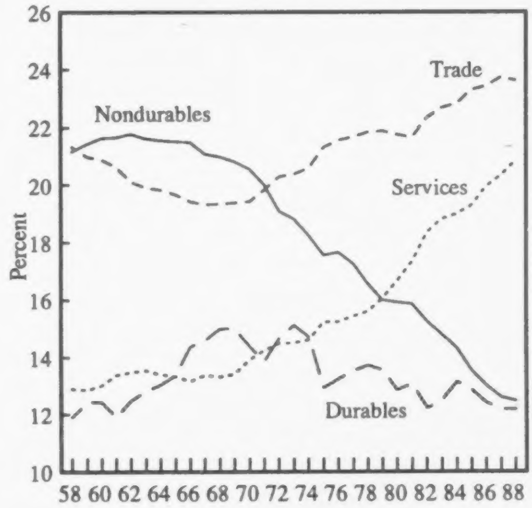


FIGURE 3
Tennessee Output and Nonagricultural Employment
by Sector as a Percent of Total Employment,
Durables and Nondurables
(output measured in nominal dollars)

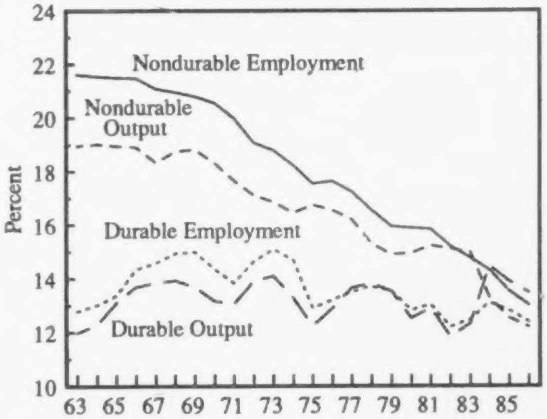


FIGURE 4

Tennessee Gross Product and Nonagricultural Employment by Sector as a Percent of Total Employment

Services and Trade

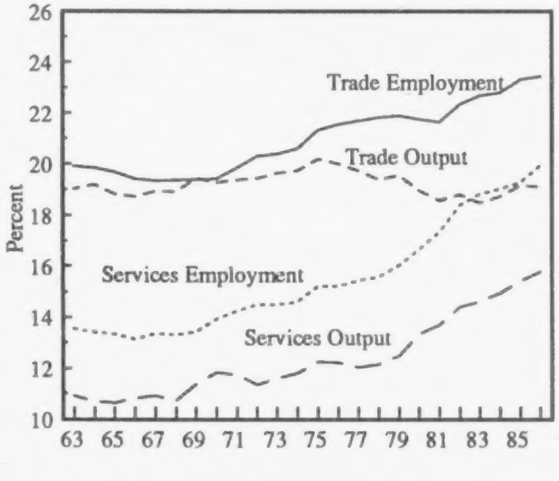
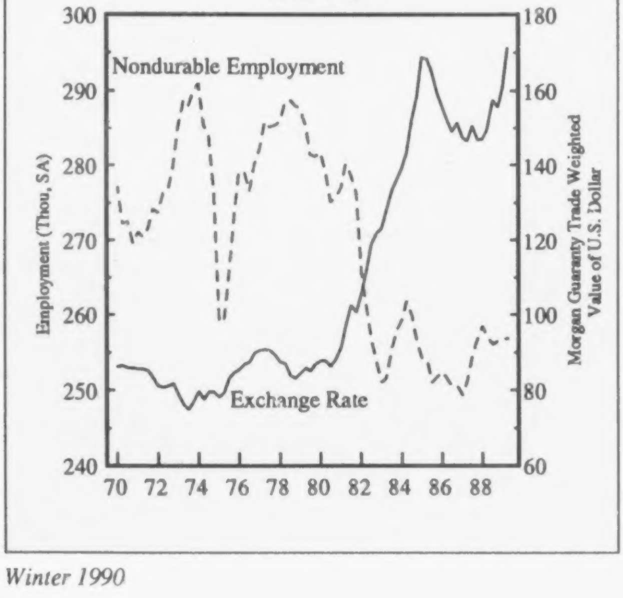


FIGURE 5

Tennessee Nondurable Employment and U.S. Exchange Rate

1970-1989



Output in Tennessee's manufacturing, services, and trade sectors has not shifted as dramatically as employment. Figure 3 shows that nominal durable manufacturing output grew as a proportion of total output over the same time period that employment remained fairly constant as a proportion of total employment. In nondurable manufacturing, both nominal output and employment decreased as a proportion of the totals, but employment fell faster until the mid-1980s. Since that time, output has fallen faster than employment. Interestingly, the proportions of employment in both durable and nondurable manufacturing were larger than the proportions of output produced by these sectors in the 1960s when productivity in manufacturing was below the statewide average. More recently, the proportions of employment and output in manufacturing have converged, and durable manufacturing now has above average productivity. Corresponding to this is a smaller increase in the proportion of total output produced by the services and trade sectors than the increase in the proportion of employment in these sectors, as shown in Figure 4. The gap between the proportions of employment and output has remained roughly constant in services, indicating that productivity is below average but holding steady in the services sector. However, the proportion of output produced by the trade sector has been constant while the proportion of employment in trade has increased, signaling decreasing productivity in trade.

Although nondurable manufacturing experienced increasing employment after the recession in 1982, the sector never returned to pre-recession employment levels. A period of stagnation and losses in employment followed the initial post-recession recovery. This occurred during a time when the value of the dollar was increasing dramatically, as shown in Figure 5. The strong dollar has been a contributing factor to the stagnation in nondurable manufacturing, but it is not the only cause. When the dollar is strong, goods produced in the U.S. are more expensive to foreign purchasers, even though the domestic cost of production has not changed significantly. Hence, it is very difficult for domestic producers to compete internationally. Similarly, a strong dollar makes foreign-produced goods inexpensive to U.S. consumers, which is a boon to consumers but further erodes domestic producers' ability to sell their products. Nondurable manufacturing is particularly vulnerable to international competition because the products can be produced with relatively low-skill labor, so many countries with an abundance of low-skill labor, low wages, and weak currencies can engage in nondurable manufacturing. In Tennessee, nondurable manufacturing employment increased again in 1987, following a decline in the value of the dollar. However, some of the gains were lost in 1988, and employment growth has been stagnant since that time. This latest stagnation coincided with increases in the value of the dollar to record levels, but it is difficult to attribute the latest problems in nondurable manufacturing to the strong dollar, since exchange rate effects normally occur only with a lag.

One way Tennessee's manufacturers can respond to heightened international competition is through more intensive mechanization. The improved productivity in manufacturing discussed above is the result of structural changes in Tennessee manufacturing that utilize equipment more and labor less. This process is a natural and healthy part of the evolution of Tennessee's economy as firms within the state struggle to remain competitive. However, technological unemployment is created as a by-product of this process. Hence, to remain competitive in an environment that relies increasingly on mechanization, Tennessee must train its work force with the skills required by a more mechanized work place.

Government

Since 1980, federal civilian employment in Tennessee has decreased by over 17,000 jobs, as shown in Figure 6. The largest part of this federal cutback occurred during 1981 and 1982 and was predominately due to the scaling-back of the Tennessee Valley Authority's (TVA) nuclear construction program. More recently, TVA reduced its work force again, resulting in decreases in federal civilian employment of about 5,000 during 1988 and 1989.

Losses in federal employment represent structural shocks that ripple throughout the Tennessee economy and diminish economic activity in other sectors. Hence, to maintain economic growth, Tennessee's economy must overcome both the direct and multiplier effects of these shocks. At the beginning of this decade, reductions in federal civilian employment contributed to the severity of the 1982 recession in Tennessee. During 1988 and 1989, reductions in federal civilian employment have contributed to below-average employment growth in Tennessee, both directly and through the decreases in aggregate demand that accompany layoffs. The broadly-based slowdown documented in Figure 1 testifies to the importance of the multiplied effects from basic weaknesses, like reduced federal employment.

Construction

Employment in the construction sector reached a peak of 96,700 in the fourth quarter of 1987. Since that time, construction employment has fallen 5,300 to 91,400 in the second quarter of 1989. There are three major causes for slower construction activity in Tennessee. First, Figure 7 shows that construction employment usually declines when home mortgage rates increase. Hence, decreases in construction employment in 1988 and 1989 are partially due to the recent increases in interest rates shown in Figure 7. Second, the tax reform act of 1986 removed preferential tax treatment from capital gains, thereby making real estate less attractive as an investment. Third, rapid growth in Tennessee's metropolitan areas in 1987 fueled construction activity. When this growth slackened, construction employment fell precipitously, especially in Knoxville and Memphis. This large swing in metropolitan area construction employment has adversely affected the statewide totals in the construction sector. Like other fundamental weaknesses in the economy, this decrease in construction employment had multiplier effects in the other sectors of the economy.

Regional Metropolitan Area Growth

Notably slower economic growth is occurring in Tennessee's four largest metropolitan areas. In the Chattanooga Metropolitan Statistical Area (MSA), nonagricultural employment growth fell from 5.9 percent in 1987 to 2.4 percent during the twelve-month period from September 1988 to September 1989. Memphis is similar, with employment growth falling from 4.7 percent to 2.0 percent between these time periods. Nashville had employment growth of 4.5 percent in 1987, but employment decreased slightly from September 1988 to September 1989. Knoxville also lost employment from September 1988 to September 1989, contrasted with 4.1 percent growth in 1987.

Part of the healthy growth in Chattanooga during 1987 resulted from a large increase in federal government employment. However, except for durable manufacturing, state and local government, and mining, the growth in Chattanooga was broadly-based. Mining and state and local government improved during 1989, but employment growth in all other sectors of Chattanooga's economy except services has slowed.

All sectors of Knoxville's economy except manufacturing grew vigorously in 1987. From September 1988 to September 1989 large decreases in construction, federal government, and

FIGURE 6
Tennessee Government Employment
1958-1989

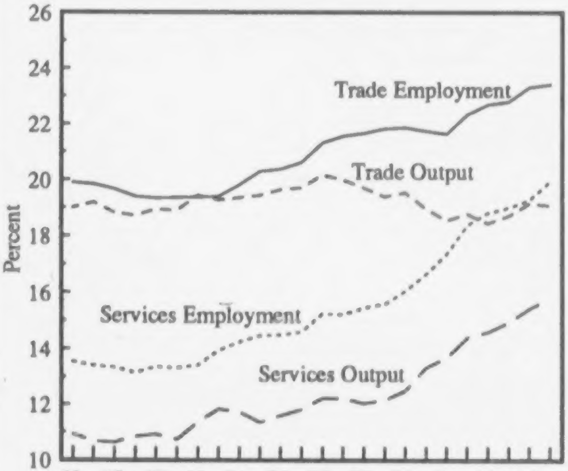
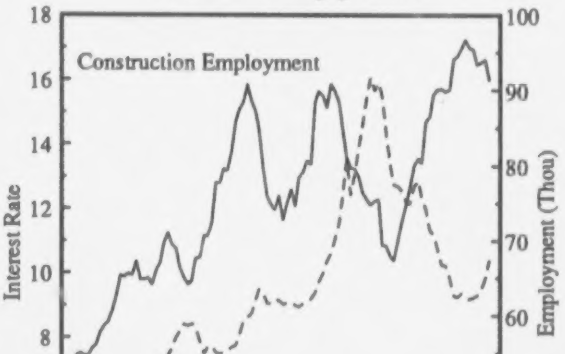


FIGURE 7
Tennessee Construction Employment and
U.S. Home Mortgage Rate



manufacturing employment occurred. Federal government employment losses were almost exclusively due to reductions at the Tennessee Valley Authority and the shifting of TVA employment from Knoxville to Chattanooga. Other sectors of the Knoxville economy that lost employment were TCPU and state and local government. The only sectors with positive growth were services and trade, both of which exhibited substantially slower growth in the first three quarters of 1989 than during 1987.

In Memphis, TCPU employment grew by over 9 percent in 1987, but increased by only 1.9 percent from September 1988 to September 1989. All other sectors of the Memphis economy have experienced slower growth recently except state and local government. Durable manufacturing employment growth declined from 5.0 to -2.5 percent between these two time periods, and large declines occurred in the FIRE, services, and construction sectors as well.

The widely-publicized above-average economic growth in Nashville did not continue into the late 1980s. In 1987, both Chattanooga and Memphis had faster employment growth than Nashville. From September 1988 to September 1989, Nashville lost employment, while Chattanooga and Memphis still gained employment during this period. The large services, FIRE, TCPU, trade, and durables, have all lost employment recently in Nashville. Growth in federal government employment also declined substantially between 1987 and the September 1988-September 1989 period. Only Nashville's construction, nondurable manufacturing, and mining sectors have had more rapid growth recently.

Another measure of regional economic growth for Tennessee's four largest MSA's is real sales growth, illustrated in Figure 8 for the Tennessee portion of MSAs. During the 1984-1987 period, healthy real sales growth was present in all four of the largest MSA's, although a slowdown occurred in 1985. Nashville had the highest growth rates in 1984, 1985, and 1986, but sales growth in Nashville declined steadily during these years and by 1987 Nashville had the slowest sales growth. Real sales growth was either flat or declining for all four MSA's in 1988, with Memphis experiencing a substantial decline that resulted in negative real sales growth. The other three MSA's followed Memphis' lead during the September 1988-September 1989 period, when all four of Tennessee's largest MSA's had negative real sales growth.

Short-Term Forecast

The short-term outlook for Tennessee is problematic. Recent economic performance in Tennessee is weak enough to suggest that a recession could occur during 1990. However, most forecasters are not predicting a recession for the U.S., and the likelihood of Tennessee experiencing a recession without a U.S. recession is slim. It is possible for Tennessee to experience substantially slower growth than the national average without entering a recession, however, as has occurred in 1988 and 1989. Given the current environment, this appears to be the most likely outcome. Hence, the current short-term forecast for Tennessee predicts continued slow and sub-average growth for the state, but no recession. This scenario is predicated on no substantial deterioration at the national level. If the U.S. experiences slower-than-expected growth, or a recession, then Tennessee will almost certainly have a recession. Table 1 presents the forecast summary for 1989 and 1990.

Employment

Total nonagricultural employment growth will slow substantially in 1989 and 1990. After 2.7 percent employment growth in 1988, overall growth in 1989 will fall to 0.7 percent. Only a slight rebound will occur in 1990, with employment growth currently forecast at 0.9 percent. Moreover, part of the improve-

TABLE 1
Selected U.S. and Tennessee Economic Indicators

	HISTORY	FORECAST - DATA										ANNUAL		
	198901	198902	198903	198904	199001	199002	199003	199004	199101	199102	199103	1988	1989	1990
US GNP (BIL 82 $) SAAR..........	4106.8	4134.0	4157.7	4173.7	4187.4	4212.4	4237.5	4264.8	4285.7	4316.5	4343.9	4024.4	4143.1	4225.5
% CHG PREV QTR SAAR...........	3.73	2.68	2.31	1.55	1.31	2.41	2.40	2.61	1.97	2.90	2.56	4.43	2.95	1.99
% CHG SAME QTR LAST YR........	3.32	3.07	2.84	2.56	1.96	1.90	1.92	2.18	2.35	2.47	2.51	4.43	2.95	1.99
US PERS CONS DEFL (1982=100)....	128.0	129.8	131.1	132.6	134.1	135.6	136.8	138.3	140.1	141.8	143.7	124.5	130.4	136.2
% CHG PREV QTR SAAR...........	4.83	5.74	4.05	4.65	4.61	4.41	3.61	4.45	5.33	5.04	5.18	3.94	4.72	4.47
% CHG SAME QTR LAST YR........	4.49	4.76	4.79	4.82	4.76	4.43	4.37	4.32	4.50	4.66	5.00	3.94	4.72	4.47
TN PERSONAL INCOME (MIL $) SAAR.	71360	71682	72445	73446	74612	75862	77010	78254	80026	81589	83233	67743	72238	76435
% CHG PREV QTR SAAR...........	8.77	1.88	4.26	5.64	6.50	6.87	6.19	6.62	9.37	8.05	8.31	7.55	7.43	5.81
% CHG SAME QTR LAST YR........	8.88	7.81	6.74	5.35	4.56	5.82	6.30	6.55	7.26	7.55	8.08	7.55	7.43	5.81
TN PERSONAL INCOME (MIL82$) SAAR	55750	55233	55261	55392	55641	55966	56285	56575	57109	57513	57937	54001	55409	56117
% CHG PREV QTR SAAR...........	4.71	-3.66	0.20	0.95	1.81	2.36	2.30	2.08	3.83	2.86	2.98	3.47	2.61	1.28
% CHG SAME QTR LAST YR........	5.15	3.01	1.86	0.51	-0.20	1.33	1.85	2.14	2.64	2.77	2.93	3.47	2.61	1.28
US PERSONAL INCOME (BIL82$) SAAR	3373.3	3389.5	3409.7	3425.2	3438.9	3461.5	3481.0	3501.5	3522.9	3541.5	3556.4	3264.3	3399.4	3470.7
% CHG PREV QTR SAAR...........	8.07	1.94	2.40	1.83	1.62	2.65	2.27	2.38	2.47	2.12	1.70	3.51	4.14	2.10
% CHG SAME QTR LAST YR........	4.65	4.30	4.10	3.53	1.95	2.12	2.09	2.23	2.44	2.31	2.17	3.51	4.14	2.10
TN NONAGRIC JOBS (THOUS)........	2085.0	2077.6	2075.9	2082.5	2088.5	2095.3	2101.9	2109.3	2121.1	2133.5	2146.7	2065.9	2080.2	2098.8
% CHG PREV QTR SAAR...........	2.19	-1.41	-0.31	1.27	1.17	1.31	1.26	1.43	2.25	2.36	2.50	2.70	0.69	0.89
% CHG SAME QTR LAST YR........	1.22	0.53	0.59	0.42	0.17	0.86	1.25	1.29	1.56	1.82	2.13	2.70	0.69	0.89
US NONAGRIC JOBS (MIL)..........	107.7	108.3	108.9	109.3	109.6	110.0	110.4	110.8	111.2	111.6	112.1	105.6	108.5	110.2
% CHG PREV QTR SAAR...........	3.34	2.41	2.06	1.46	1.18	1.39	1.46	1.50	1.46	1.62	1.63	3.31	2.80	1.51
% CHG SAME QTR LAST YR........	3.19	2.98	2.74	2.32	1.78	1.52	1.37	1.38	1.45	1.51	1.55	3.31	2.80	1.51
TN UNEMPLOYMENT RATE (%)........	5.8	5.3	4.8	5.3	5.6	5.7	5.7	5.6	5.5	5.5	5.4	5.8	5.3	5.6
US UNEMPLOYMENT RATE (%)........	5.2	5.3	5.2	5.3	5.5	5.5	5.4	5.4	5.4	5.3	5.3	5.5	5.2	5.4
BANK PRIME INTEREST RATE (%)....	11.0	11.4	10.7	10.5	10.3	10.0	10.0	10.0	10.0	10.3	10.2	9.3	10.9	10.1
TN MFG JOBS (THOUS).............	511.6	510.8	512.2	513.3	515.1	515.4	515.9	516.0	517.4	518.8	521.1	508.2	512.0	515.6
% CHG PREV QTR SAAR...........	1.87	-0.62	1.07	0.88	1.42	0.26	0.38	0.09	1.02	1.16	1.75	2.16	0.73	0.72
% CHG SAME QTR LAST YR........	0.64	0.59	0.91	0.79	0.68	0.91	0.74	0.54	0.44	0.66	1.00	2.16	0.73	0.72
TN MFG AVG WEEKLY HOURS.........	41.2	41.1	40.9	40.8	40.8	40.7	40.7	40.7	40.7	40.7	40.7	41.6	41.0	40.7
% CHG PREV QTR SAAR...........	-1.04	-0.96	-1.33	-0.84	-0.72	-0.32	-0.38	-0.13	-0.10	0.26	0.24	0.05	-1.44	-0.68
% CHG SAME QTR LAST YR........	-2.09	-1.43	-1.19	-1.04	-0.96	-0.80	-0.57	-0.39	-0.23	-0.09	0.07	0.05	-1.44	-0.68
TN TAXABLE SALES (MIL $)........	9944	9937	10111	10223	10356	10506	10643	10809	11021	11202	11399	38508	40216	42314
% CHG PREV QTR SAAR...........	8.4	-0.3	7.2	4.5	5.3	5.9	5.3	6.4	8.1	6.7	7.2	6.0	4.4	5.2
% CHG SAME QTR LAST YR........	4.8	2.9	5.2	4.9	4.1	5.7	5.3	5.7	6.4	6.6	7.1	6.0	4.4	5.2
TN TAXABLE SALES (MIL 82$)......	7769	7656	7713	7710	7723	7751	7779	7814	7865	7896	7934	30932	30848	31067
% CHG PREV QTR SAAR...........	3.4	-5.7	3.0	-0.1	0.6	1.5	1.5	1.8	2.6	1.6	1.9	2.0	-0.3	0.7
% CHG SAME QTR LAST YR........	0.2	-1.8	0.4	0.1	-0.6	1.2	0.9	1.4	1.8	1.9	2.0	2.0	-0.3	0.7

SOURCE:QUARTERLY TENNESSEE ECONOMETRIC MODEL.
CENTER FOR BUSINESS AND ECONOMIC RESEARCH,UT-KNOXVILLE.

FIGURE 8
Tennessee MSA Sales Growth
1984-9/89
(1982 Dollars)

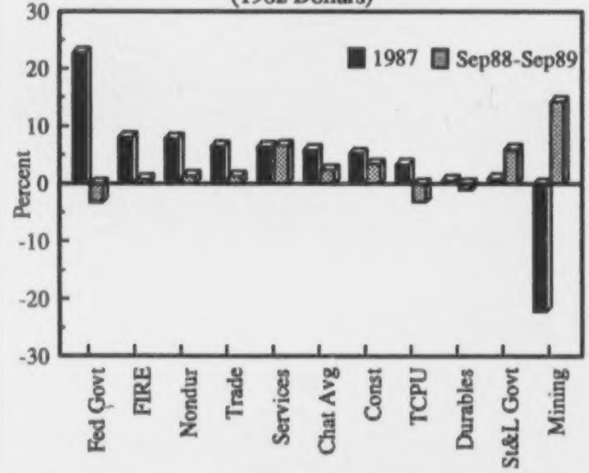
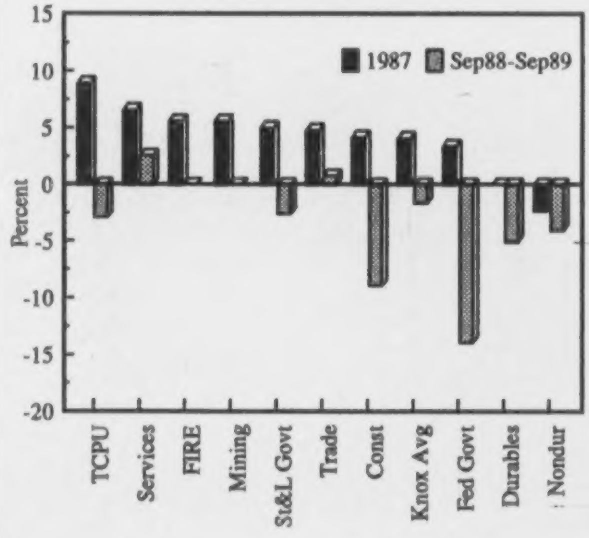


FIGURE 9
Tennessee Nonagricultural Employment Growth by Industry
1989 and 1990



ment in 1990 is due to the expected opening of the Saturn plant in Spring Hill, a one-time increase that overstates the underlying growth trend.

Figure 9 shows Tennessee employment growth by industry for 1989 and 1990. The slow growth and employment losses that have already occurred in the nondurable manufacturing, construction, and federal civilian sectors will continue through 1989 and into 1990. In addition, mining will lose employment, as it has every year since 1984. Services will witness the fastest employment growth in Tennessee, although the forecast growth rates of 2.2 and 2.1 percent for 1989 and 1990 are low for the services sector. Employment in FIRE is expected to grow by 2.1 and 1.8 percent in 1989 and 1990, respectively, which is also sluggish for the FIRE sector. Durable manufacturing employment is forecast to grow at relatively healthy 1.4 and 1.6 percent rates in 1989 and 1990, but these growth rates are still below the growth in durable manufacturing in 1987 and 1988. Moreover, as mentioned above, the 1.6 percent growth expected in 1990 is largely supported by the opening of the Saturn plant. Hence, the forecast underlying growth in durable manufacturing is slower than the growth exhibited by this sector in the recent past. Both the TCPU and trade sectors are forecast to have positive employment growth, but growth in these sectors will not exceed 1 percent during 1989 and 1990.

It is surprising that Tennessee's unemployment rate has remained low during 1989, despite the decreases that have occurred in nonagricultural employment. During the third quarter of 1989, the seasonally-adjusted civilian unemployment rate is expected to average 4.8 percent, the lowest level in 15 years. The reason for the apparent conflict between a low unemployment rate and negative employment growth is that both employment and unemployment have decreased during 1989, but unemployment has decreased faster, thereby driving the unemployment rate down. With both employment and unemployment decreasing, the total labor force must fall as well, and a declining labor force is not a sign of economic health. It represents a decrease in the size of the Tennessee economy as measured by the number of people participating in the economy. Hence, the low unemployment rate that Tennessee is enjoying during 1989 must be interpreted with caution. In the second quarter of 1989, Tennessee's civilian labor force declined by 5.5 percent at a seasonally-adjusted annual rate (SAAR), the largest quarterly drop in the labor force on record in the current labor force statistics. Thus, the apparent good news provided by the low unemployment rate belies the weak underlying economic activity.

The forecast for the Tennessee unemployment rate depends crucially upon the behavior of the labor force during 1989 and 1990. If the labor force increases suddenly without a commensurate increase in employment, Tennessee's unemployment rate could jump upward abruptly. Without a sudden increase, the unemployment rate will remain low.

The forecast for the Tennessee unemployment rate depends crucially upon the behavior of the labor force during 1989 and 1990. If the labor force increases suddenly without a commensurate increase in employment, Tennessee's unemployment rate could jump upward abruptly. Without a sudden increase in the labor force, the unemployment rate will remain low despite the slow employment growth predicted for 1989 and 1990, although slow employment growth will probably push the unemployment rate up somewhat. The participation rate (the proportion of the population participating in the labor force) implied by a 4.8 percent unemployment rate in the third quarter of 1989 is 60 percent. Since this is the lowest participation rate since the 1983 recession, it is probable that the labor force will increase at least modestly, and this increase is reflected in the current forecast. This increase, coupled with slow employment growth, will drive the unemployment rate up to 5.3 percent in the fourth quarter of 1989. A slight increase to 5.6 percent is expected for 1990. While discouraging, these forecasted increases in the unemployment rate are mild, given the growth that the Tennessee economy is currently experiencing, and higher unemployment rates are a possibility if the labor force rebounds more rapidly.

Inflation

Inflation, as measured by the U.S. personal consumption deflator, was 3.9 percent in 1988. However, inflation accelerated during the year, and registered 4.8 percent at a SAAR in the first quarter of 1989. While inflation has moderated in recent months, this is expected to be a temporary decrease, and the current forecast calls for an increase in average annual inflation for 1989 to 4.7 percent. A weaker national economy in 1990 will result in slightly less inflation, with the personal consumption deflator growing by 4.5 percent.

Personal Income

Nominal personal income in Tennessee grew at a very strong 9.8 percent SAAR in the first quarter of 1989. In real terms, the increase was 4.7 percent. This strong increase at the beginning of the year will enhance annual growth rates for 1989 even if income grows slowly for the remainder of the year. Commensurate with the decrease in employment that began in the second quarter of 1989, the forecast predicts a decrease in real personal income, although nominal income will still increase by 1.9 percent. Slow, but positive, income growth will prevail for the remainder of 1989. This combines with the rapid growth of the first quarter to produce an average annual growth rate of 2.6 percent for real personal income in 1989. This is a decrease from the real income growth of 3.5 percent in 1988, but nominal income growth will remain almost constant in 1989 due to higher inflation. Relatively slow real income growth will continue into 1990. Without the rapid increase at the beginning of the year that occurred in 1989, the slow growth rates in 1990 will combine to produce only 1.3 percent real personal income growth for the year. Moreover, with inflation expected to decrease slightly in 1990 due to a sluggish U.S. economy, nominal income growth will drop to 5.8 percent.

Output

Aggregate real gross state product (GSP) will grow very slowly in 1989 and 1990, but growth is expected to remain positive at 0.3 and 0.2 percent, respectively. Nominal GSP growth will slow as well, but higher inflation in most output sectors will dampen the slowdown. Nominal GSP is forecast to grow by 4.6 and 4.5 percent in 1989 and 1990, respectively. This is a substantial decrease from the 8.3 percent average compound annual growth rate of GSP from 1982 to 1988.

Figure 10 shows the prospects for real gross state product growth by sector in 1989 and 1990. Durable manufacturing will maintain relatively healthy growth, due largely to new plant openings and the increases in productivity experienced in this sector. This performance will not be mirrored by nondurable manufacturing, where growth will slow in both 1989 and 1990. The large FIRE, trade, and services sectors will all exhibit lethargic growth, while government, mining, and construction will experience real declines in output.

Sales

Nominal sales in Tennessee grew by 6 percent in both 1987 and 1988. The rapid income growth of the first quarter of 1989 resulted in increased consumption, and sales growth increased

FIGURE 10
Tennessee Output Growth by Industry
1989 and 1990

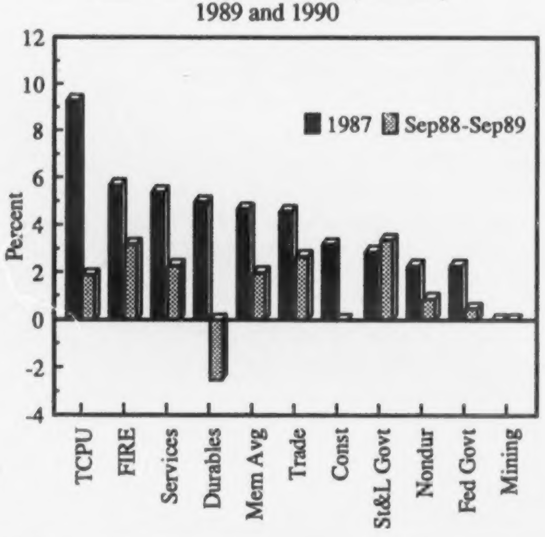
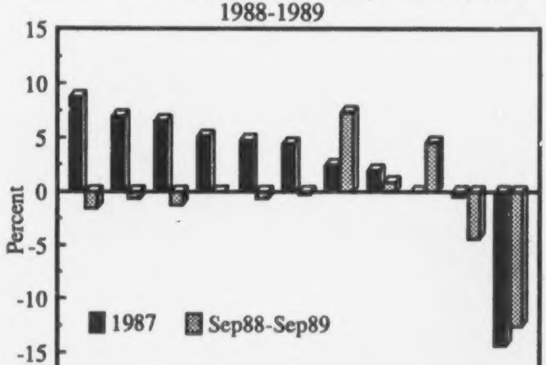


FIGURE 11
Index of Prices Paid and Received by Farmers, U.S.,
1988-1989



to a healthy 8.4 percent SAAR in the first quarter of 1989. However, this increase was short-lived, as nominal sales dropped 0.3 percent at a SAAR in the second quarter of 1989. The decrease occurred primarily in automobile sales and durable goods sales, although sales of nondurable goods also decreased substantially. Eating and drinking establishments suffered a decrease in sales in the second quarter of 1989 as well.

Sales growth for all of 1989 is forecast at 4.4 percent, a decrease from the 6 percent growth in 1988 but a substantial improvement over the second-quarter decrease. The 4.4 percent growth results from an expected rebound in sales in the second half of 1989, particularly in the third quarter. However, higher inflation in 1989 will combine with the weaker sales to produce a drop in real sales of 0.3 percent. In 1990, both nominal and real sales will recover somewhat, despite lower inflation. Nominal sales are forecast to grow by 5.2 percent, with real sales growing by 0.7 percent.

Agricultural Outlook

1989: Year In Review

The 1989 crop year in Tennessee was characterized by substantial production and yield increases over drought-reduced 1988 levels. For example, U.S. burley tobacco production was up 17 percent, while acreage rose only 15 percent. U.S. corn production rose 54 percent. Total supply of soybeans was up approximately 15 percent nationally, with yields up 20 percent. Crop prices in general were stable or trended lower (see Figure 11), as production estimates early in the year predicted substantial increases in most crop supplies except cotton. Burley tobacco production in Tennessee increased moderately as variable weather conditions across the region resulted in wide quality ranges. In the livestock sector, cow/calf production remained profitable for Tennessee producers. Fed-beef production was less profitable, as was feeder pig and hog production, a result of higher feed prices.

The Importance of Agriculture in Tennessee

Although manufacturing and service industries have eclipsed the role of agriculture as the major employer in the state, the agricultural sector is still an important factor in the Tennessee economy. This is particularly true in the sparsely populated rural counties. Forty-two percent of Tennessee's land and 2.2 percent of its work force are directly engaged in the production of crops and livestock. In 1988, the agricultural sector employed an estimated 88,000 workers and produced $769 million in net farm income. (See Figure 12) An additional 30 percent of the land and 0.5 percent of the work force were occupied by the production and harvesting of timber and forest products. Tennessee ranks 28th among producers of agricultural products in the United States and 22nd in agricultural exports.

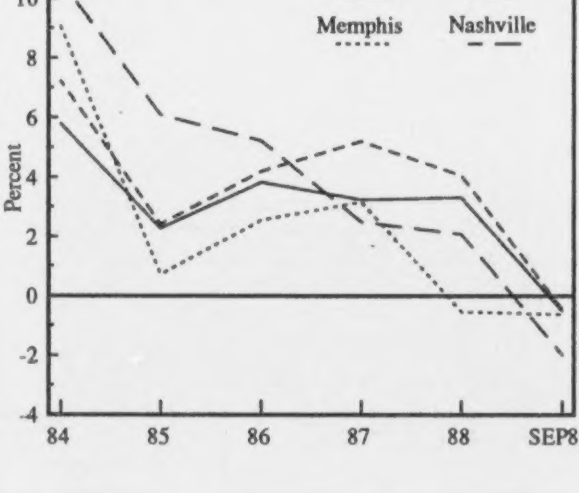
In 1988, the most recent year for which figures are available, the five most important agricultural commodities produced in Tennessee (beef cattle and calves, dairy products, soybeans, cotton, and greenhouse and nursery products) resulted in net cash receipts of $1.37 billion. Cash receipts for all agricultural production in Tennessee for 1988 totalled $2.05 billion, $965 million for crops and $1.09 billion for livestock. An estimated $700 million in timber and cut lumber sales were also contributed to the agricultural sector in 1988. However, the agricultural sector contributed significantly more to the Tennessee economy when links to the rest of the economy are included.

For example, crop production sales in 1988 netted Tennessee producers approximately $965 million. The commodities with the highest cash receipts were soybeans, tobacco, cotton, corn, and greenhouse and nursery products. Cash receipts from the sale of these five commodities in 1988 totalled approximately $760 million. Soybeans and cotton, produced primarily in West and Middle Tennessee, earned cash receipts in 1988 of $245 million and $152 million, respectively. Burley tobacco, grown primarily in Middle and East Tennessee, produced cash receipts of $138 million in 1988. Corn produced throughout the state in 1988 earned cash receipts totalling $58 million. Approximately 60 percent of this production was fed to livestock on the same farm where it was produced, resulting in an understatement of the economic value of corn production. Nursery crops are concentrated on the Cumberland Plateau and greenhouse products are grown primarily in Davidson, Hamilton, and Sullivan Counties. Cash receipts in 1988 from combined greenhouse and nursery production equalled $164 million.

In 1988, Tennessee's livestock producers earned cash receipts of $1.08 billion. Beef, dairy, and hog production, the principle livestock enterprises in the state, earned combined cash receipts of $927 million. This was approximately 86 percent of all cash receipts earned from the sale of livestock in Tennessee in 1988. Judged on the basis of cash receipts, beef cattle production is the most important agricultural activity in the state. Beef cattle production, concentrated in Middle Tennessee, produced cash receipts in 1988 of $528 million. Dairy production, concentrated in Middle and East Tennessee, earned cash receipts of $266 million. The production of hogs, which takes place almost exclusively in West and Middle Tennessee, produced cash receipts in 1988 totalling $133 million.

Forty-seven percent of the total land area in Tennessee is forested. Of that amount, 36 percent is owned by Tennessee farmers, 46 percent by other private owners, 9 percent by private industries, and 9 percent by state and federal government. The timber in Tennessee's forests is composed of approximately 85 percent hardwood, primarily oak, hickory, and poplar, and 15 percent softwood, principally loblolly and shortleaf pines. Tennessee produced 297 million board feet of hardwood lumber in 1984. The majority of this hardwood was used in the production of furniture and other wood products. Softwoods were used primarily in the production of pallets, wood chips, sawdust, and paper products. In Tennessee the forest products industry employs

FIGURE 12
Net Farm Income in Tennessee, 1982-1988



51,000 workers and generates a payroll which exceeds $750 million.

The total value of crop, livestock and timber sales in Tennessee for 1988 is estimated to be $2.8 billion. Approximately 98,000 workers were employed by these enterprises for this same period.

Soybeans. As soybean prices have declined through $6.00 per bushel this fall, on-farm storage has emerged as an attractive marketing alternative for Tennessee farmers, given the positive prospective demand situation. Although the new crop is approximately 15 percent larger than the 1988 crop, a 7-10 percent increase in domestic disappearance, coupled with a projected Brazilian acreage reduction, could push prices back above $6.00 per bushel early in the new year.

Corn/feed grains. While 1989 corn production was up over 50 percent, corn supply was only up 4 percent due to reduced stocks. Lower feed prices and continued strength in the beef market will result in an approximate 6 percent increase in corn use. Export commitments are presently 23 percent ahead of the 1988 pace, and total export volume will likely run 3-5 percent over levels of a year ago. Thus, Tennessee corn prices this fall and into next year should average slightly higher than expected earlier--in the $2.40-$2.50 per bushel range.

New crop outlook is less optimistic. A modest acreage increase, given recent trend yield levels, could result in production increases that would push prices next fall into the 2.00-2.15 range.

Wheat. Similarly, supplies in the wheat market will remain tight, as ending stocks decline to their lowest level in 15 years. Although national prices will remain in the $4 range, Tennessee farmers will likely receive less, due to quality discounts resulting from wet-weather damage. Outlook for the 1990 crop is that acreage will increase dramatically, due to higher prices to some degree, but mainly due to lower USDA set-asides requirements. The 1990 crop could be 25 to 30 percent larger than the 1989 crop, pushing prices next fall to $2.50 per bushel. However, given low stocks, wheat prices in 1990 will be more volatile than normal, and in the event of lower-than-trend yields, prices next June could be expected near $3.50.

Burley tobacco. An under-utilization of the burley tobacco quota continues to be a problem for Tennessee producers. The 1989 effective quota was set 17 percent above 1988 level, but Tennessee burley producers responded with only a 5 percent acreage increase. A projected increase for 1989 will probably receive a similar response. Long-term, the result may be a fundamental change in the quota-growing system, a prospect beginning to find favor among industry leaders. Possible modifications include cross-county leasing, raising the acreage limitation for leased quota, or allowing the outright sale to burley tobacco quota. However, these changes are not likely for the 1989 crop year.

Cotton. The outlook for cotton has improved over the past year. A 14 percent increase in cotton usage, combined with a 23 percent decrease in production and a 25 percent increase in exports, should result in continued strength in cotton prices until late spring. Prices through June should fluctuate around the 70-75 cent-per-pound range. After that, new crop prices should begin to dominate the market, and the 1990 crop should be substantially larger than the 89 crop. If crop size increases by 30 percent, spot prices next September could easily fall within the 56-60 cent range.

Beef cattle. A good 1989 hay crop has resulted in a generally widening profit margin in the cow-calf market, while relatively high grain prices have squeezed profit margins in the fed-beef markets. Lower feed prices, reduced U.S. cattle slaughter numbers, and only a slightly larger U.S. herd size have all contributed to profits for cattle producers, but a 4 percent increase in replacement heifer numbers indicates than an expansion is underway. However, cow/calf operations are likely to continue profitable for several more years. Cow/calf producers in Tennessee can look forward to providing feeding calves in the $95-to-$100 per hundredweight (cwt) range by January or March of 1990, although considerable price fluctuation is to be expected at these levels.

Hogs. 1989 was a tough year for Tennessee hog and feeder pig producers, and inventories declined by 28 percent. The outlook for 1990 is not much improved, with prices continuing to range through the upper 30's and low 40's over the next six months. However, lower feed prices could improve the profit picture. The trend toward fewer and larger hog producers should continue, as large operators are able to take advantage of considerable economies of size. Tennessee feeder pig producers can look toward prices in the $20-per-head range as lower slaughter numbers and relatively high feed prices continue to dominate the pork industry.

1990 Farm Bill Debate

Congress this fall and next spring will debate and enact the 16th farm bill since 1933, which will have direct impact on the farmers of Tennessee. While significant changes are possible, the probability is high that the 1990 bill will include an acreage reduction/price support package. The terms of the price support and acreage restriction provisions will impact either directly or indirectly on foreign trade, environmental issues, and rural development.

Acreage restrictions in the 1990 Farm Bill will probably move toward increased flexibility in planting decisions by farmers. Schemes to allow farmers to plant alternative crops without loss of program "base" acreage--the principle measure by which benefits are paid--seem promising. Several that are being discussed include:

(1) Triple Base Plan: Farmers are paid benefits on a reduced acreage that is separate from actual planted acreage. For example, a farmer with a 100-acre corn base under this plan might be able to plant 90 acres to maintain his/her "base," but can receive benefits on only 85 acres.

(2) Revised Acreage Reduction Program: "Base" would be calculated on a whole-farm basis, not in terms of individual crops. Farmers would be free to plant whatever they wished, up to set-aside limits, of any program crop without losing the "base" of any.

(3) Legislators are also likely to consider a "de-coupling" of farm programs. That is, farmers would receive the same level or payment regardless of plantings, so long as a total acreage restriction is observed.

Environmental issues of concern in the 1990 Farm Bill will likely center around erosion control on highly erosive cropland, the diversion of cropland to permanent vegetative cover, and the monitoring of agricultural chemical contamination of surface and ground water. A coupling of commodity programs to these environmental concerns is likely, with provisions likely for reducing erosion on set-aside land and encouraging permanent retirement of certain croplands into non-erosive uses. Programs to encourage tree plantings in some areas of the country also appear likely.

The Long-Term Forecast

Short-term trends in the state's economy are often determined by national business cycle conditions, interest rates, value of the dollar, and other national economic conditions. The long-term scenario for the state also is affected by trends in the national economy, but the state's economic structure is a much more important determinant of its long-term economic picture. This chapter examines Tennessee's economic picture in the 1990s by first examining the state's economic structure. Then, the long-run forecast is reviewed.

Structural Change in Tennessee

Manufacturing

Much has been written about the state's changing economic structure. Historically, Tennessee's economy has been characterized by a concentration in manufacturing employment. In fact, more than one-third of Tennessee's jobs were in manufacturing in 1973, compared with only 26.2 percent in the U.S. (see Figure 13). Most of Tennessee's manufacturing jobs have traditionally been in the nondurable industries such as the apparel, chemicals, printing and publishing, textile, and food industries. (Nondurable goods are products which have a life of less than three years.) Tennessee also has several large durable goods industries (producing goods with a life of greater than three years), including the fabricated metal and electrical and nonelectrical machinery industries. The transportation equipment industry has grown rapidly, with such visible locations as Nissan and Saturn, and currently employs about 33,000 people.

The manufacturing industries have been in transition for many years, and one result has been that the percentage of employment had fallen to 24.6 percent by 1988 (see Figure 13). The pattern in Tennessee of a declining percentage of employment in the manufacturing sector has followed a national trend. Manufacturing was only 18.6 percent of U.S. employment during 1988. However, the relative decline in the national share of employment in manufacturing has been slightly larger than Tennessee's.

This transition potentially has important implications for rural areas since many rural counties have more than one-half of their employment in manufacturing. Surprisingly, much of the employment decline has been in the metropolitan areas.

FIGURE 13
Nonagricultural Job Distribution, 1973

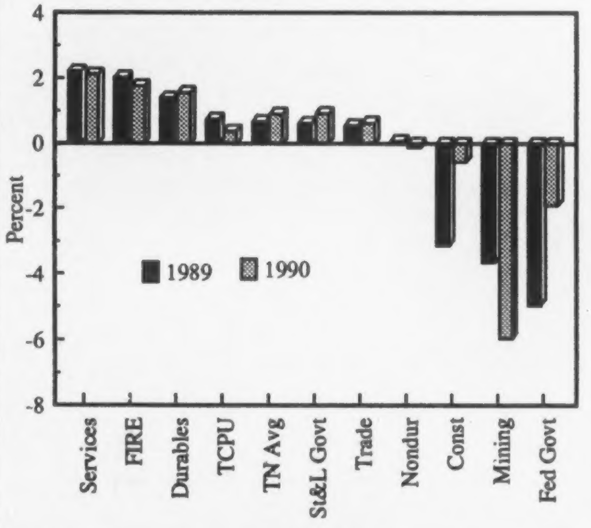
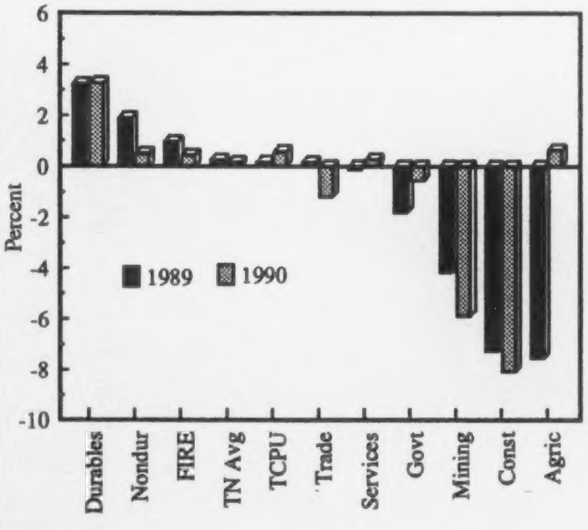


FIGURE 14
Nonagricultural Job Distribution, 1988



Declines of a similar magnitude would devastate some rural counties. Still, many rural economies are closely tied to manufacturing and have experienced slow growth since this industry has not been generating jobs on net.

From the perspective of the manufacturing industry as a whole, several types of transitions have been underway. First, there have been job losses, some of which are related to long-term decline in the importance of specific industries in Tennessee. Among the nondurable industries, the largest employment losses since the mid-1970s have occurred in the chemicals and leather goods industries, though the tobacco, textiles, and apparel industries have also lost employment. The stone, clay and glass, and primary metal durable goods industries have experienced employment declines as well. During the 1970's manufacturing employment grew because the growing industries offset the declining industries, but manufacturing declined as a share of the economy.

Another transition has been development of new production techniques which have arisen because of emerging technologies allowed by better computers and telecommunications. In many situations the new technologies have been associated with employment losses or smaller employment gains. Still, implementation of new technologies is essential to a productive and vital manufacturing sector in Tennessee. The resulting productivity gains from better technology allowed the percentage of Tennessee output in manufacturing to grow from 27.7 percent in 1973 to 28.8 percent in 1988. Thus, in a relative sense, output from the manufacturing sector has been growing as employment has been falling.

Another major change has been the downsizing of manufacturing firms as they seek more flexibility in their operations. As a result, the percentage of Tennessee businesses in manufacturing grew from 7.0 percent in 1972 to 7.2 percent in 1985, despite the declining share of employment in manufacturing. This occurred as the average employment size of the firms declined. As noted above, these firms are increasingly more productive.

The above changes indicate that the manufacturing firm of the 1990s will look very different from its predecessors. It will find traditional location determinants to be less important, and in fact will have fewer constraints on its location decisions. Information and transactional services, such as legal and financial, will be much more important. It will be less tied to available labor, because less is used. However, it will be more dependent on quality labor, because new technologies require workers who can learn across their lifetimes. It will be more flexible, able to adjust quickly to new markets and demands, and yet be more productive. Manufacturing will remain a strong industry provided that Tennessee delivers the services and labor needed.

The service and retail and wholesale trade sectors have become the sources for new jobs, as the manufacturing sector has ceased to be a generator of jobs. The share of jobs provided by each has risen dramatically since 1973 (see Figures 13 and 14). A partial reason for their growth is increased specialization in the activities performed by manufacturing firms, which has meant that manufacturing firms now purchase some services (such as legal services) which would formerly have been performed in-house.

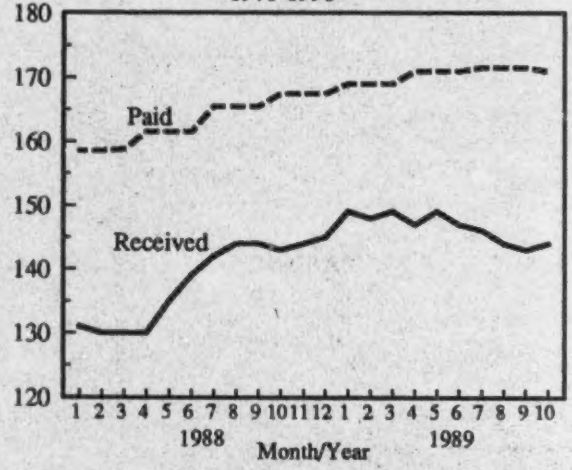
Also, the use of temporary employment agencies has shifted some employees onto the payroll of service rather than manufacturing firms. Still, research indicates that the purchase of services that formerly would have been performed in-house is not a major reason for the shift in manufacturing employment.

TABLE 2
Tennessee Selected Indicators

	FORECAST-DATA									
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
TN GROSS STATE PRODUCT (MIL. DOL.)	87850	91806	99041	105971	113430	121907	130461	139529	148876	158939
PERCENTAGE CHANGE	4.57	4.50	7.88	7.00	7.04	7.47	7.02	6.95	6.70	6.76
TN GROSS STATE PRODUCT (MIL 82 $)	70215.7	70342.1	72855.9	74798.8	77618.7	80337.5	82827.6	85223.8	87422.7	89746.5
PERCENTAGE CHANGE	0.27	0.18	3.57	2.67	3.77	3.50	3.10	2.89	2.58	2.66
US GROSS NATIONAL PRODUCT (BIL 82 $)	4142.7	4225.5	4329.5	4454.7	4574.1	4696.0	4809.2	4925.0	5034.7	5155.2
PERCENTAGE CHANGE	2.94	2.00	2.46	2.89	2.68	2.66	2.41	2.41	2.23	2.39
TN PERSONAL INCOME (MIL. DOL.)	72236	76435	82445	88321	95189	102207	109443	117317	125771	134735
PERCENTAGE CHANGE	7.43	5.81	7.86	7.13	7.78	7.37	7.08	7.19	7.21	7.13
TN PERSONAL INCOME (MIL 82 $)	55396.6	56116.5	57733.3	58768.8	60542.8	62054.1	63483.5	64952.8	66429.7	67922.8
PERCENTAGE CHANGE	2.54	1.30	2.88	1.79	3.02	2.50	2.30	2.31	2.27	2.25
US PERSONAL INCOME (BIL 82 $)	3399.1	3471.0	3550.2	3640.2	3711.5	3791.0	3868.3	3949.7	4026.0	4108.9
PERCENTAGE CHANGE	4.10	2.12	2.28	2.53	1.96	2.14	2.04	2.11	1.93	2.06
TN EMPLOYED PERSONS (THOUS)	2233.4	2252.5	2290.5	2323.1	2361.4	2383.4	2418.8	2457.9	2495.3	2529.2
PERCENTAGE CHANGE	0.88	0.86	1.69	1.42	1.65	0.93	1.49	1.61	1.52	1.36
US EMPLOYED PERSONS (MIL)	117.5	118.8	120.7	122.8	124.5	126.1	127.3	128.9	130.2	131.8
PERCENTAGE CHANGE	2.16	1.19	1.52	1.76	1.43	1.27	0.97	1.21	1.04	1.20
TN UNEMPLOYMENT RATE	5.3	5.6	5.4	5.2	5.0	5.1	5.1	5.0	5.2	5.0
US UNEMPLOYMENT RATE	5.2	5.4	5.3	4.9	4.7	4.6	4.8	4.7	4.8	4.7
IMPLICIT DEFLATOR.GSP	125.1	130.5	135.9	141.7	146.1	151.7	157.5	163.7	170.3	177.1
PERCENTAGE CHANGE	4.29	4.32	4.16	4.22	3.15	3.84	3.80	3.94	4.02	4.00
IMPLICIT DEFLATOR.GNP	126.7	132.6	138.6	145.0	151.1	157.7	164.5	171.7	179.4	187.4
PERCENTAGE CHANGE	4.47	4.65	4.53	4.65	4.16	4.38	4.36	4.37	4.47	4.45
TN MFG OUTPUT/EMPLOYEE (THOUS 82 $).	40.4	41.0	42.6	44.0	46.4	48.7	50.7	52.5	54.5	56.6
PERCENTAGE CHANGE	1.96	1.43	3.86	3.33	5.49	4.85	4.05	3.69	3.74	3.89
US MFG OUTPUT/EMPLOYEE (THOUS 82 $).	47.4	48.8	50.4	52.4	53.4	54.9	56.6	58.4	60.3	62.2
PERCENTAGE CHANGE	2.87	3.01	3.38	3.84	2.00	2.85	3.06	3.13	3.20	3.15
TN PER CAPITA INCOME ($)	14637	15361	16434	17458	18614	19679	21088	22374	23746	25219
PERCENTAGE CHANGE	6.55	4.95	6.98	6.23	6.62	6.79	6.09	6.10	6.13	6.20
TN POPULATION (THOUS.)	4935	4976	5017	5059	5114	5142	5190	5244	5296	5343
PERCENTAGE CHANGE	0.82	0.82	0.82	0.84	1.08	0.54	0.94	1.04	1.01	0.87

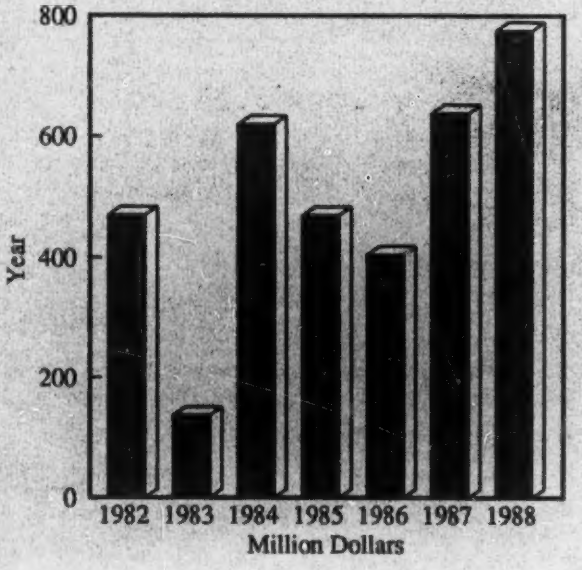
SOURCE: ANNUAL TENNESSEE ECONOMETRIC MODEL.
CENTER FOR BUSINESS AND ECONOMIC RESEARCH, UT-KNOXVILLE.

FIGURE 15
Tennessee Nonagricultural Job Growth by Decade, 1970-1998



Source: Agric. Stat. Board, NASS, USDA, September, 1989.

FIGURE 16
Tennessee and U.S. Unemployment Rates, 1980-1998



Many of the new service sector jobs have been in relatively high-paying industries such as health care, legal, and business services. These generally rely on well educated employees. There also has been job growth in trade and service industries which demand lesser-skilled, lower-wage workers. Often these industries have compensating advantages as they allow flexible hours and work conditions which make them attractive for younger and older workers.

Two other sectors with changing employment shares should be noted. Financial services represented by the finance, insurance, and real estate (FIRE) sector have expanded in a similar, though less spectacular fashion as the service sector. Government's employment share has declined, caused by declines in federal government. Federal government employment reached 4.4 percent of the state's employment at the height of the TVA nuclear construction program and has fallen to 2.7 percent as the program has been winding down.

Long-Term Outlook

Table 2 is an overview of the long-term forecast for the years 1990 through 1998. The forecast values beyond 1991 should be interpreted as trends rather than the specific results expected for each year. This is because it is not reasonable to predict the timing of business cycles beyond the current cycle. Thus, though it is likely that a recession would occur sometime during the forecast horizon, none is included in the current estimates. A deviation from the trends reported in the tables would be expected during the recession and subsequent rebound, but the average should be in line with the forecast. The following is a discussion of some of the forecast results. The long-term forecast is generally described below as a forecast of the 1990s, though it actually ends in 1998.

Employment

The long-term employment forecast is based on an expectation that much of the structural change of the 1980s is over. A slight acceleration of employment growth is expected as a result, with employment growth at a compound annual rate of about 1.9 percent annually. Still, employment growth rates cannot be expected to return to the robust levels of the 1960s and 1970s. The most important reason is that labor force growth will be too slow, as the number of young people and women entering the labor force is slowing.

The service sector will continue setting the pace for employment expansions in the 1990s (see Figure 15). As before, the better increases will be in industries which require better training and which offer better salaries. Wholesale and retail trade also will be relatively strong in coming years, though slowing from previous decades. This is partly the result of weaker income growth during the next decade. Construction employment is expected to perform better in the 1990s, partly because the decade starts with the declines from the late 1980s. Construction employment will not reach the 1987 peaks until around 1994. Government employment will grow better, but still at less than one-half the rate of all employment growth. The FIRE sector will expand more slowly as mergers trim some firms' employment and as firms in other industries become more competitive with products offered by the FIRE sector. Drawing the lines between firms in financial industries and others will be increasingly difficult. A prime example is Sears, with a bank, insurance company, broker, and credit card subsidiary.

Employment growth of about 1.2 percent annually is forecast for durable goods manufacturing. Fabricated metals and transportation equipment are forecast to have the highest growth rate. Saturn and Nissan will both have significant employment expansions at the beginning of the decade. Nondurable goods are anticipated to maintain employment in the 1990s. This is a slight improvement compared with the 1980s, when employment actually fell. However, this occurs because the expansions of printing and publishing, paper, and rubber and plastics offsets the expected declines in chemicals, leather, apparel, and textiles and because chemicals and leather employment are not expected to shrink as dramatically.

The labor force is expected to grow about 1.4 percent annually during the 1990s. Employment growth will be slightly faster than labor force growth, so the unemployment rate will fall slowly across the decade. Even though the unemployment rate is expected to rise over the next year to about 5.6 percent, it should fall to about 5.0 percent by the end of the decade (see Figure 16). Tennessee's rate will be approximately at the U.S. rate in the 1990s, after spending most of the 1980s well above the U.S. rate (see Figure 16). Also, the unemployment rate will remain low relative to most years in the 1980s. The main reason is that members of the maturing labor force (because of an aging population and modest increases in the labor force) will have closer linkages to their jobs and will remain unemployed less.

FIGURE 17
Tennessee Real Gross State Product Growth by Decade, 1970-1998

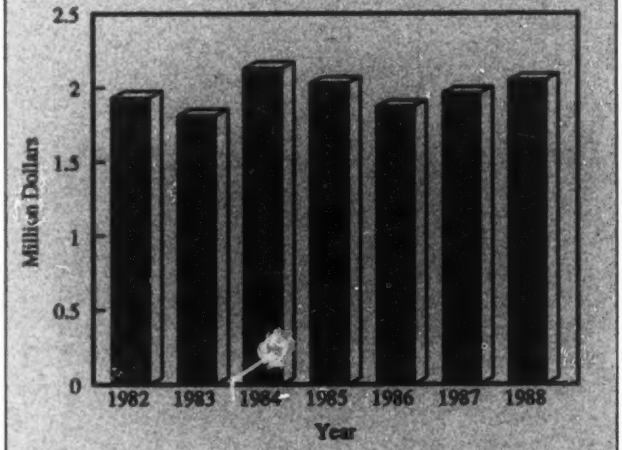
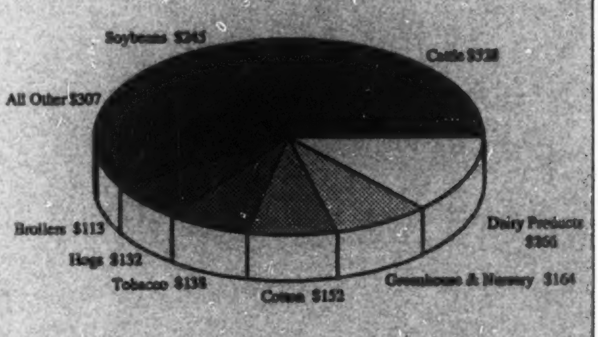


FIGURE 18
Tennessee Growth in Real Average Annual Wages, 1990-1998



Figures are in million of dollars.
Total cash receipts in 1988 equaled 2.05 billion dollars.

Thus, the "full employment unemployment rate" will be falling over the next decade.

Gross State Product

GSP will grow faster than employment because of productivity increases. Output will rise at a compound annual rate of 3.1 percent, with employment accounting for 1.9 percent and productivity gains accounting for 1.2 percent. This means that the productivity gains of the next decade will be approximately the same as those for the last decade.

No sector is forecast to experience declines in output growth during the 1990s, though mining, construction, and government had declines during the 1980s (see Figure 17). Manufacturing, which will continue to benefit from new technologies, will exhibit the most rapid output increases. Implicit in this forecast is the expectation that durable goods industries will experience a 4.1 percent annual gain in productivity, and nondurable goods industries will have a 3.0 percent gain in productivity. The construction sector, after very weak performance in the 1980s, is anticipated to have very strong output growth. Agriculture, government, and mining will have the weakest output increases.

Economic forecasts are attempts at forecasting an economic environment for a given set of policies. The economy can be changed with a different set of policies. Employment will be unable to grow much faster than the projections of the previous section because of the limitations of demographic trends. There will not be enough workers to allow rapid employment growth, though increases can occur through policies designed to attract more senior adults or AFDC recipients into the labor force. The best prospect for stimulating stronger growth in Tennessee's economy than is forecast here lies in achieving better productivity growth. Several options exist for productivity improvements, and it should be noted that some improvements in these areas were anticipated in the forecast. First, a more highly skilled labor force will be more productive. Investments in providing existing workers with enhanced skills through literacy programs and job-specific training programs offer considerable prospects for enhancing worker productivity. An improved education system will be essential to allow entrants in the work force to have better general skills and to become the lifetime learners essential in today's flexible, changing firms. Second, a higher quality infrastructure for Tennesseans to work with is essential. The telecommunications, highway, and water and sewer systems must be able to meet business needs of the 1990s. The emphasis in the future will be on the quality rather than the availability of the infrastructure. Finally, Tennessee businesses must have access to appropriate technology and programs designed to help them implement technology. Production methods are changing too rapidly for many firms to stay abreast of new techniques. The state has a vested interest in ensuring that its firms use the appropriate technology to remain competitive.

Personal Income

Personal income is forecast to rise at a 7.3 percent annual rate during the 1990s. Much of this growth is the result of inflation and population change. The growth rate of personal income is 1.5 percent annually when the effects of inflation and population are subtracted. This figure represents the annual growth in Tennessee's well-being. This is somewhat lower than in the past decade, but the differences are in areas such as proprietor's income and transfer payments.

About 61 percent of personal income comes from wage and salary payments, which are forecast to grow 7.3 percent annually, or at a compound annual growth rate of 0.5 percent in per capita real terms--approximately the same as during the 1980s. Wages will grow most rapidly in the financial, manufacturing (durables and nondurables) and trade sectors (see Figure 18).

Other labor income, which includes fringe benefits, is 7.6 percent of total compensation for labor (wages, salaries, and fringe payments). Other labor income has grown much more rapidly than wages during the 1980s, but the growth rate of fringe benefits is expected to slow during the coming decade. One reason is that lower federal income tax rates means there is less incentive to take wages in forms other than taxable wages. Another reason is that the base of taxable income has been changed so that it is more difficult to avoid taxes by taking income through fringe benefits.

The most rapid growth rate will be in rents, interest and dividends, which will rise 7.8 percent annually. Proprietor's income is predicted to grow 7.1 percent annually. Transfer payments, which are payments for which no service is required, such as social security and welfare, are forecast to slow somewhat, to a 7.4 percent annual increase. ■

Due to a computer error during the compilation of graphics for this issue, some figures in the article beginning on page 34 were mislabeled. Please use the corrected figures below for reference in reading the article.

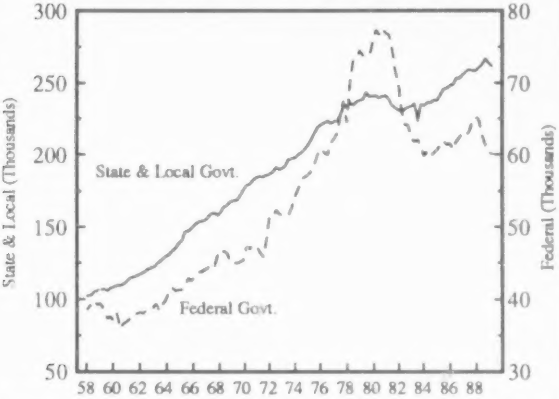


FIGURE 6
Tennessee Government Employment, 1958 - 1989

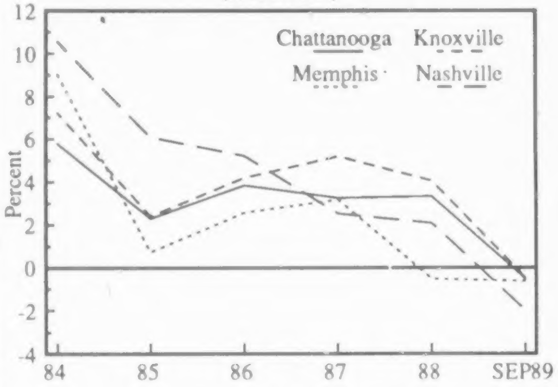


FIGURE 8
Tennessee MSA Sales Growth, 1984 - 9/89
(1982 Dollars)

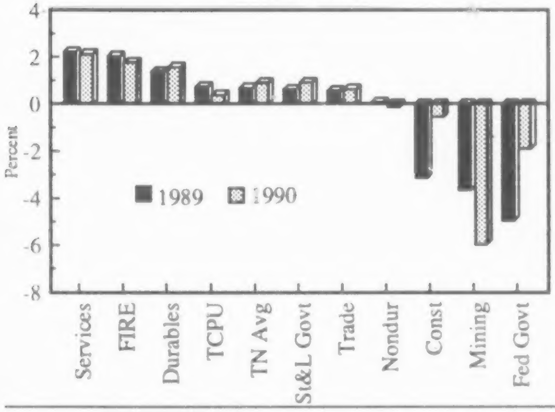


FIGURE 9
Tennessee Nonagricultural Employment Growth by Industry
1989 and 1990

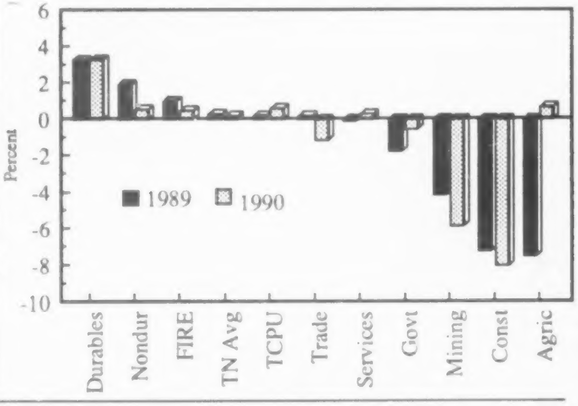


FIGURE 10
Tennessee Output Growth by Industry, 1989 and 1990

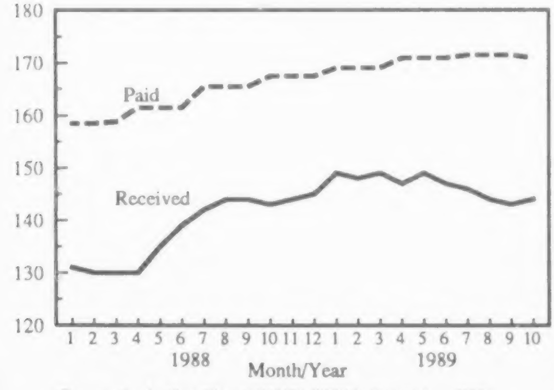


FIGURE 11
Index of Prices Paid and Received by Farmers, U.S., 1988 - 1989

Source: Agric. Stat. Board, NASS, USDA, September, 1989.

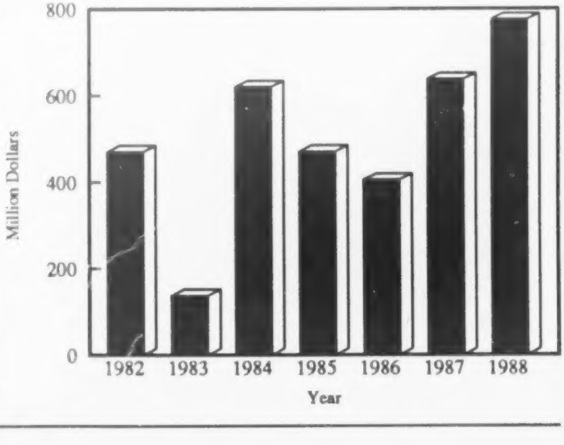


FIGURE 12
Net Farm Income in Tennessee, 1982 - 1988

FIGURE 13

Nonagricultural Job Distribution, 1973

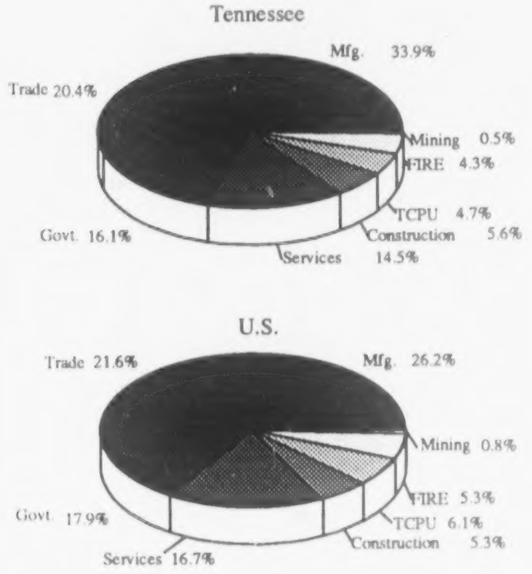


FIGURE 14

Nonagricultural Job Distribution, 1988

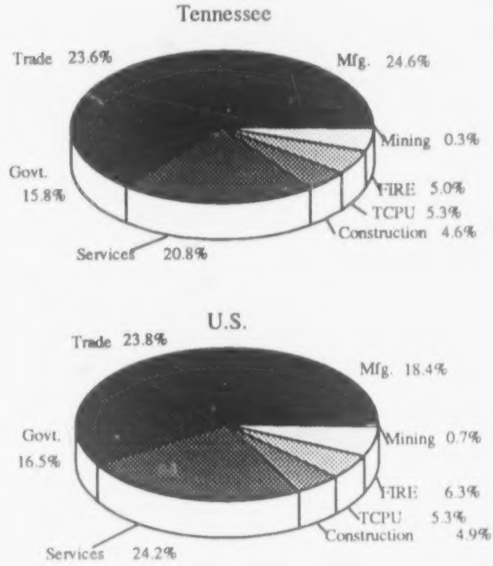
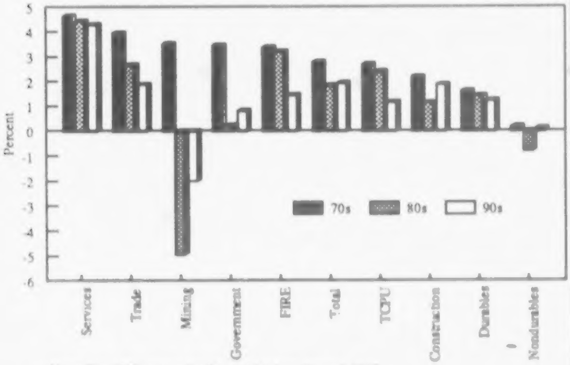


FIGURE 15

Tennessee Nonagricultural Job Growth by Decade, 1970 - 1998



Note: The 1990s cover the forecast horizon through 1998.

FIGURE 16

Tennessee and U.S. Unemployment Rates, 1980 - 1998

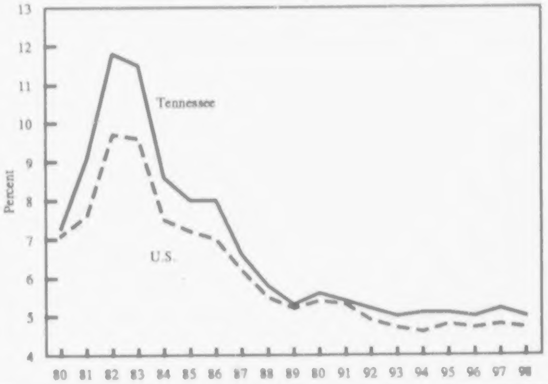
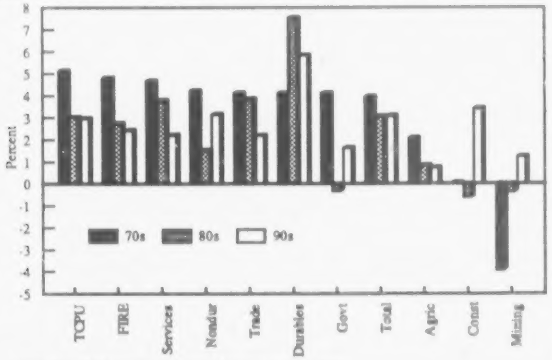


FIGURE 17

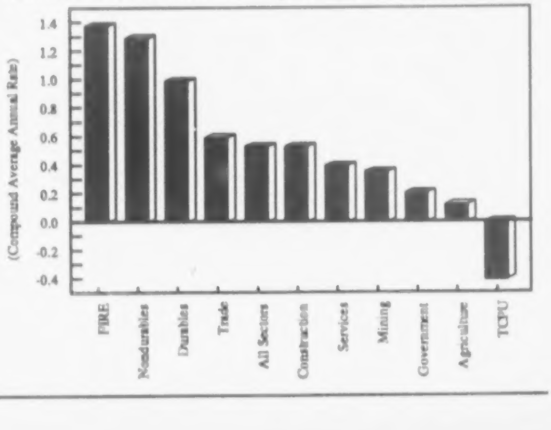
Tennessee Real Gross State Product Growth by Decade, 1970 - 1998



Note: The 1990s cover the forecast horizon through 1998.

FIGURE 18

Tennessee Growth in Real Average Annual Wages, 1990 - 1998



THE EUROPEAN COMMUNITY, 1992: IMPLICATIONS FOR TENNESSEE

by Matthew N. Murray and Carlos Martins-Filho

Recent rapid increases in U.S. export and import trade have had important effects on the state economy, as has the influx of foreign direct investment.

Tennessee's linkages to the international economy are strong and growing. Recent rapid increases in U.S. export and import trade have had important effects on the state economy, as has the influx of foreign direct investment. For example, in 1987 (the most recent year for which data are available), foreign direct investment in Tennessee directly accounted for nearly 80,000 jobs. The international sector also has become the focal point for concerns regarding the competitiveness of U.S. and Tennessee business and industry.

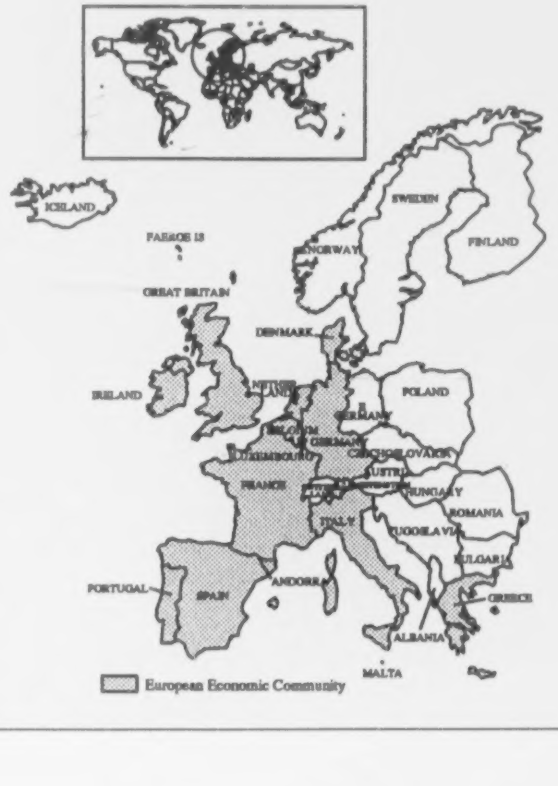
An important transformation is underway in Western Europe that may alter dramatically the existing nature of international trade. The 12 countries comprising the European Community are engaged in a lengthy process scheduled to culminate on December 31, 1992 with integration into a single, unified internal market (see Figure 1). This unified market will represent one of the largest trading blocks in the world, with 320 million consumers and a combined gross domestic product of $4.6 trillion. Although the emergence of this integrated market holds great promise for American producers, it also portends significant structural changes for the U.S. which in the short run may threaten to weaken the position of domestic producers.

The state of Tennessee has important linkages with many of the countries which are members of the EC. For example, in 1988 $728 million in export goods were shipped from Tennessee, destined for the EC. Western Europe is also the source of a considerable portion of foreign direct investment in Tennessee. In 1987, four EC countries--France, the Netherlands, the United Kingdom and

West Germany--directly accounted for 48 percent of foreign direct investment affiliated employment in the state (or over 38,000 workers). Many questions arise as to how these broad relationships, as well as more specific relationships, might change during and after European integration. Will Tennessee be able to export more to Western Europe, or will European (or other international) producers accommodate any increased demand for goods and services resulting from integration? Will integration significantly improve the efficiency and reduce the costs of EC production, leading to increased exports to the U.S. that might compete with domestically produced goods? Will EC investors choose to invest in Western Europe rather than in Tennessee? Will a "Fortress Europe" develop, one that is hostile towards trade with nonmembers of the Community? While there are no clear answers to these and other more specific questions, the issues must be considered so as to allow the business community and the public sector to position themselves in anticipation of an integrated Europe.

The intent of this article is to explore "EC 92" and its implications in greater detail. The article begins by examining the historical evolution of the EC, important EC decision-making institutions, and the primary barriers to integration that are to be dismantled. The focus then turns to the potential implications of EC 92 for Tennessee in terms of foreign direct investment and international trade in goods and then to ways in which the state might position itself in anticipation of EC 92.

FIGURE 1
European Economic Community



Evolution of The European Community

Movement towards a single, integrated European market began with the Treaty of Rome signed in 1957 by six countries, formally creating the European Community. The initial objectives of the Treaty remain a useful description of the current goals of the European Community project: "eliminate the barriers that divide Europe" through the establishment of a "common market," so as to facilitate trade and growth, both economically and politically.

Elimination of the formal barriers that divide Europe is a formidable task, and it is surprising that a consensus could be reached by the parties involved in this initial effort. The primary and more visible barriers to free intra-European trade that were to be eliminated first were tariffs and quotas. A tariff is a tax, generally expressed as a percentage of the product price (as is the case with a sales tax), which is imposed on imported products. Quotas are limitations on the quantity of a good that can be imported into a country. The intent of these two instruments of trade control is to reduce competition from abroad and encourage domestic production and employment. Tariffs also serve as a revenue source. However, consumers typically must pay higher prices, and the economy may suffer from a misallocation of resources. Because of the adverse effects of tariffs and quotas (including their presence as a visible sign of non-integration), the first policy step was the elimination of these barriers to trade among the member states. This vital first task was completed 18 months ahead of the 12-year deadline, and by mid-1968 all customs duties (i.e., taxes) were abolished for trade among EC countries and a common external tariff was established on all imports from non-EC nations.

In addition to a consistent and unified approach to taxes on intra-EC trade, a common framework for indirect taxation (e.g., the taxation of sales and exports) was to be created. Also, through EC legislation, efforts were made to establish uniform standards, because different product standards by individual member states create a barrier to intra-European trade.

The first decade of existence of the EC could be characterized as an overall success. Nevertheless, obstacles to unification remained, and pressures for unification mounted. The decision-making mechanism by which member nations reached agreement delayed the process of unification because it required unanimous consent for the approval of specific legislation. In addition, the economic crisis of the 1970s exacerbated the differences in macroeconomic policies pursued by the member states. The inclusion of four new member states (Denmark, Ireland, the United Kingdom and Greece) also brought new financial and administrative burdens that continued to slow the pace towards the completion of the internal market. Moreover, in the early 1980s, there was a loss of competitiveness of European products in international markets that triggered a general concern regarding the future of Europe as an economic power. EC unity became a major economic as well as political issue. Integration became a step that had to be undertaken, otherwise Europe would "drop back into mediocrity" (Commission of the European Communities 1985, pp. 55).

Recent Initiatives

In June of 1985 the European Commission, which is the executive arm of the Community, issued a document commonly referred to as the *White Paper* (formally entitled "Completing the Internal Market"). The 1985 *White Paper* raised the stakes associated with unification by noting that there were "immense problems" to be confronted if unification did not take place. These problems, resulting from formal and informal trade barriers, represented a cost of up to 2 percent of the gross domestic product of the 12 member states, or $92 billion. Awareness of the serious waste and damage to the European economy associated with non-integration induced the European Council, the EC's legislative body, to endorse the plan for a unified market, free of any kind of barriers, by December 31, 1992.

The *White Paper*, which is objective and policy-oriented, formalizes the reform measures needed to meet the 1992 deadline. While not addressing all of the hindrances to be surmounted to complete unification, the *White Paper* divides the primary barriers to unification into three groups: (1) physical barriers; (2) fiscal barriers; and (3) technical barriers. The *White Paper* outlines 285 measures (i.e., directives) which, if successfully adopted, would promote the elimination of border controls (i.e., regulation and inspections); the liberalization of movements and activities of financial resources and services (e.g., the activities of finance and insurance companies); the harmonization of regulation standards; and the opening of public procurement markets (i.e., the government bidding process).

The Single European Act (SEA), signed at the end of 1985 and enforced in mid-1987, was an important additional step towards unification. In an attempt to speed up the adoption of directives vital to the completion of the internal market, the SEA modified the voting process, which had previously required unanimous consent, changing it to the weight voting system (a system of qualified majority). This system was used for all issues related to the process of unification except for those involving taxation, professional qualifications, and employees rights, for which unanimous approval still remained necessary. The weights assigned to each country are a function of their size. For example, France, Italy, Germany and the U.K. receive the maximum number of votes, whereas Portugal, Spain, Greece and other smaller countries have a smaller number of votes.

The SEA and the *White Paper* both formalized the notion of "mutual recognition" (although this specific term was not included in the language of either document), in lieu of uniform standards across all countries, or independent standards for all countries in the EC. In practice, this implies that a product (legally) marketed in one member state must be allowed access to markets in all member states. This important precedent precludes the need for specific, community-wide standards for every product and service.

The Decision-Making Process

The burden of the design, implementation, and enforcement of EC policies falls on four institutional bodies: the Council of Ministers, the European Commission, the European Parliament

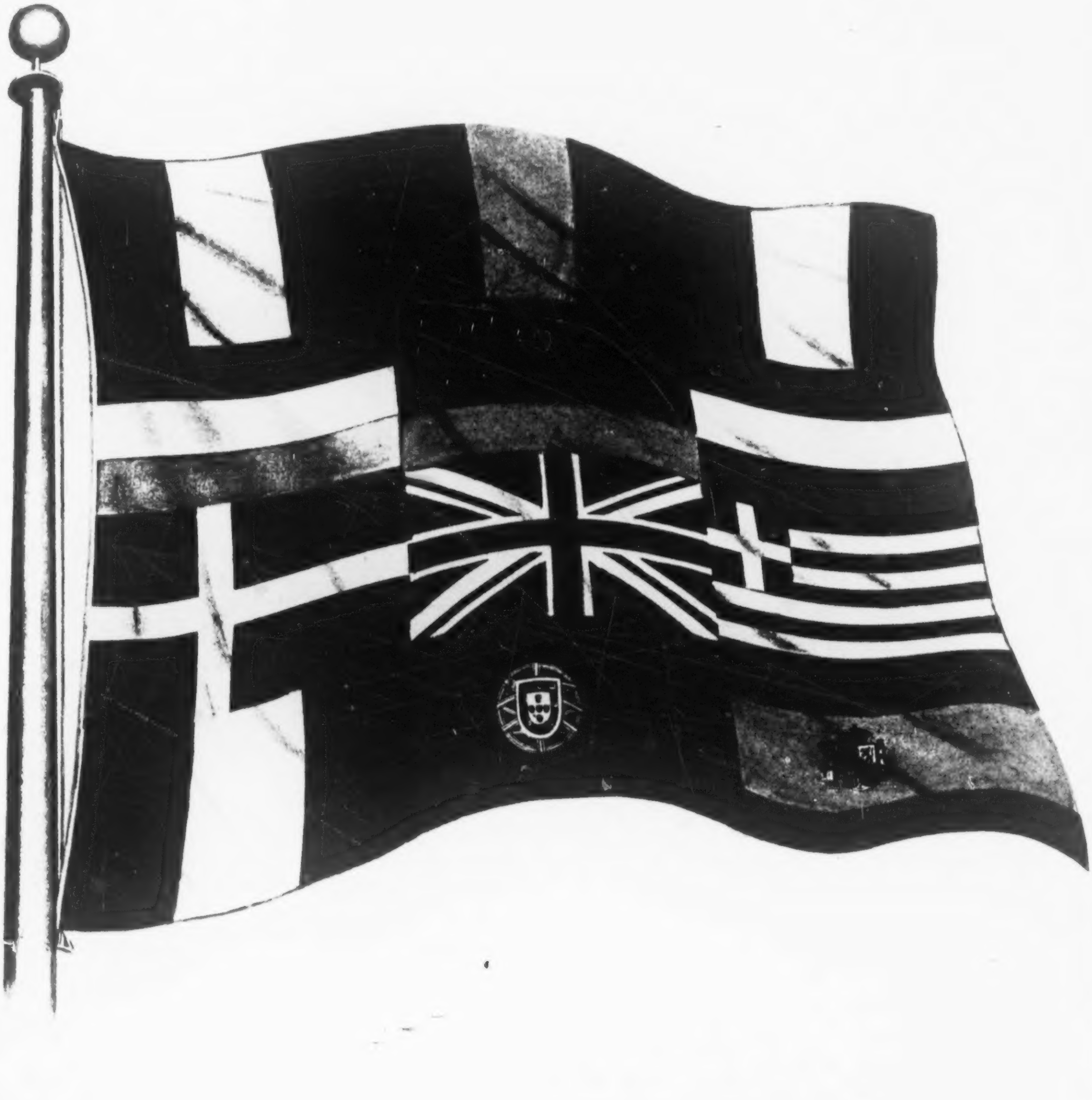


FIGURE 2
Primary Decision-making Institutions
of the European Community

The Council of Ministers

The Council, the primary decision-making (legislative) body of the EC, is comprised of cabinet-level representatives from all member nations. The Council is charged with the task of making financial and administrative decisions, and formally deals with outside countries. The decision-making rule used by the Council (e.g., unanimity or qualified majority) depends upon the nature of the issue.

The Commission

As the executive arm of the EC, the Commission introduces and enforces policy. The Commission consists of 17 commissioners, with at least one, and at most two, from any member country.

The European Parliament

The Parliament is an "advising and supervisory" body with 518 members elected directly by EC citizens to five-year terms. The Parliament's actual role was severely limited prior to the Single European Act. Presently, it has the power to dismiss the commissioners of the EC Commission, reject applications for membership into the EC, and reject international agreements negotiated with non-EC countries.

The European Court of Justice

The Court interprets the Treaty of Rome, ensures compliance, resolves disputes involving other community institutions, and may arbitrate internal disputes over EC laws. Thirteen appointed judges sit on the Court, serving six-year terms.

Source: U.S. International Trade Commission, 1989.

and the European Court of Justice. The activities of these organizations are summarized in Figure 2.

Formal EC policy (legislation) is specified in the context of various directives and regulations. These policies have the effect of law, and supersede the laws of the individual member states. The directives are drafted initially by the Commission, and subsequently considered by the Parliament. The Council utilizes Parliament's opinion and any revisions made by the Commission to arrive at a "common position." The measure incorporating the common position is then resubmitted to Parliament. If Parliament accepts the measure, it must be formally adopted by the Council. If Parliament rejects the measure, it can be adopted by the Council only through unanimous voting.

Dismantling the Barriers

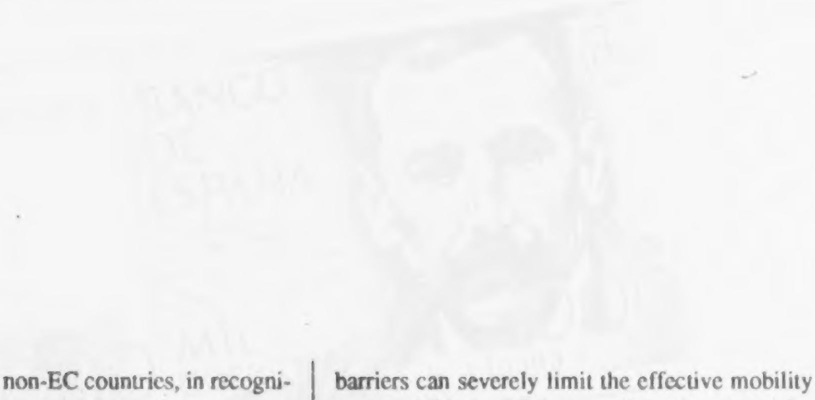
Present efforts toward unification focus largely on various barriers related to the flow or cost of resources and products. Regardless of how successful these efforts are, it must be emphasized that informal barriers to unification will remain. Some of these differences, such as cultural differences, are sometimes clearly visible; for example, there are nine primary languages in use within the EC. Unfortunately, the strongest threat to market integration is the historical diversity of the various European countries (e.g., nationalism), a factor hardly surmountable by EC legislation.

In the following section, the focus is on the primary economic obstacles to market integration. The discussion begins by focusing on specific obstacles that must be dismantled by 1992 and then notes obstacles that will likely remain after 1992.

Specific barriers to be dismantled by 1992. A specific set of economic barriers was examined extensively in the *White Paper* and included in the 1992 timetable. Significant progress has been made in removing these barriers, although a complete dismantling by 1992 is doubtful. Each type of barrier is discussed in turn below.

Border controls. A most evident barrier to market integration is the presence of border restrictions that impede the free movement of people and goods, such as border inspections and the stamping of passports. Although intra-EC tariffs were abolished in 1968, border controls are still necessary due to differences in various other laws and regulations among the member states. More specifically, border controls are due to the following factors:

- Differences in value added and excise tax rates and coverage
- Variations in agricultural support programs
- Veterinary controls due to divergent national health standards
- Transport controls (e.g., weight limits and licensing)



- Control of bilateral trade with non-EC countries, in recognition of trade quotas against nonmember states

Border controls raise significantly the production and transportation costs associated with inter- and intra-EC trade. Illustrative of the costliness of border controls is the example of truck delays arising from customs requirements. According to a 1984 study, trucks suffered an average delay of 80 minutes on EC borders at a per-truck cost that varied from $38 to $48. This represents a total cost of $10 billion a year. In addition, a 1988 study estimates that European firms pay as much as $8 billion in administrative costs and other delays occasioned by customs procedures. As a final example, there is currently no right of transit with respect to electrical and gas systems across borders of the EC member states. However, some countries experience energy shortages, whereas others have energy surpluses. It has been estimated that by allowing inter-country energy transfers, the EC could save $1.2 billion by 1992 (*Journal of Commerce*, July 13, 1989). Dismantling border controls would not only serve to reduce costs, but would also have a strong psychological effect on market integration, since border controls are clear and obvious evidence of a non-integrated market.

Labor force movement

Citizens of the EC have the right to work or do business in any member state without facing formal restrictions. For example, a physician who graduated from a Portuguese university can practice in London, Berlin or Copenhagen. Accountants and lawyers may have to take short courses to update their knowledge of country-specific practices, but they will be able to conduct business throughout the EC. Blue-collar workers can move freely, with no formal restrictions of any type.

Although the mobility of the labor force is uninhibited in terms of formal regulations, there remain problems and barriers. Some professional groups, interested in keeping outside competition to a minimum, may seek to limit recognition of outside professionals. The reason is that some of these groups derive enormous economic advantages from existing laws and regulations in their countries. Another major barrier to the free movement of labor reflects concerns with the quality of education received by the immigrant professional. This is particularly the case when a professional from a southern state such as Greece or Portugal moves to a northern country such as Germany or Denmark. There also may be racial or ethnic barriers which interfere with the movement of people. Such socio-cultural barriers can severely limit the effective mobility of labor, and may prohibit the EC from realizing its potential.

Tax structure. The most important indirect tax in the EC is the value added tax (VAT). Differences in VAT rates, and differences in the tax base to which the rates apply, represent a major obstacle to unification. Harmonization of the VAT is important in eliminating (or reducing) the distortions associated with varying VAT structures. For example, different tax rates may induce consumers to seek out low-tax countries, just as consumers in Tennessee may seek out low-tax counties or states, or purchase goods through mail-order sales companies, in order to reduce their sales tax liabilities.

The structure of the VAT varies dramatically across the member states. This structure may be summarized as follows:

(1) Low Rate--Imposed on necessities such as food and children's clothes, and varies from 0 percent in the U.K. to 10 percent in Ireland

(2) Basic Rate--Varies from 12 percent in Spain and Luxembourg to 25 percent in Ireland

(3) High Rate--Imposed on luxury items such as cars and stereos, and varies from 25 percent in Belgium to 38 percent in Italy

The EC proposes to retain these three VAT categories, but narrow the bands within which member state's tax rates may lie. For example, within the low-rate category, the EC has proposed a minimum rate of 4 percent and a maximum rate of 9 percent. This (limited) harmonization of the VAT structure will likely reduce consumption and trade distortions. However, harmonization faces serious obstacles within member nations. For example, there is opposition in Britain to the new rates to be applied within the low-rate category, since the British presently do not tax food, but with unification would be forced to tax food at a minimum rate of 4 percent.

Divergences in technical standards. Variations in technical standards represent one of the most serious hindrances to free trade in Europe. European businessmen rank differences in regulations and standards as one of the most acute problems associated with their European operations. The problem is that European firms tend to produce for national markets (i.e., they narrow their horizons by producing for small markets), and thus fail to benefit from the economies of large-scale production. For example, the Dutch multinational Phillips Corporation must produce seven different types of television sets to meet varying technical standards within Europe. Another example, reported in the *Journal of Commerce* (July 24, 1989), indicates that there are five major U.S. producers of auto batteries, four major Japanese producers, and 58 European producers. This problem, which has enormous effects on costs, production, and technology, arises because intra-European trade, as it relates to technical standards, is not regulated by the Community's laws and standards. The result is, for example, that some products which are marketed in France may not be lawfully or practically marketed in Germany. These disparities occur, in part, because national legislators have different concepts of what is harmful for their citizens in the fields of health, safety, and environmental protection. Regardless of the reason, the immediate effect is that technical standards vary from country to country, creating large costs for businessmen, consumers, and government.

> *Although most of the obstacles to unification were addressed in the* ***White Paper****, two of the more important issues not addressed were (1) the absence of a common currency and coordinated monetary policy; and (2) the lack of coordination of fiscal policy (including different structures of direct, or personal taxation).*

The EC has developed some strategies to combat the lack of uniformity that influences intra-European trade. The main action is called selective harmonization. The goal is to substitute national regulations with a broad body of EC rules and standards. For example, the EC may determine pollution-emission levels (by firms or automobiles), but may allow individuals or firms discretion in how to reduce emissions. Another important action, noted above, is what has been called *mutual recognition*. This is a very simple principle, but a powerful one with respect to trade. Mutual recognition would allow goods produced and marketed in one of the member states to be marketed in all others with no restrictions.

Post-1992 Obstacles to Integration. Although most of the obstacles to unification were addressed in the *White Paper*, some important issues were set aside. Two of the more important issues not addressed were (1) the absence of a common currency and coordinated monetary policy; and (2) the lack of coordination of fiscal policy (including different structures of direct, or personal taxation). Coordination, particularly as it relates to monetary and fiscal policy, is an extremely sensitive issue, because member states fear the loss of national sovereignty. For example, the United Kingdom fears the loss of national and international prestige that might be associated with the assimilation of the United Kingdom and the British pound into the broader EC and the European Monetary System (EMS). Coordination is also complicated by the different needs of the individual EC nations, as illustrated by different rates of unemployment, different levels of development and rates of growth, different distributional concerns, etc. For example, unemployment rates in Spain may be as much as 15 times higher than unemployment rates in Luxembourg, and more than twice as high as those in West Germany and the U.K.; per capita income exhibits considerable variation, with Denmark's per capita income nearly five times higher than Portugal's. Fiscal and monetary policy variations will likely remain well after 1992, reflecting variations in the need, willingness and ability of member states to address domestic issues.

The transformation underway in Western Europe, in many respects unparalleled in recent history, holds great promise for the future of Europe. However, unification and integration must be viewed as a process, not as a magical event that will occur in 1992. The *White Paper* and the Single European Act are comprehensive documents that represent some of the last institutional steps to internal unification. However, these documents are the outgrowth of a process that has its formal roots in 1957. In addition, these documents do not consider all issues related to integration, nor are answers provided to all questions. Cultural, political and historical differences across member states will remain as informal barriers to integration. Serious issues remain to be resolved, such as the harmonization of fiscal and monetary policy among member states. A resolution on these issues by 1992 is extremely unlikely. Moreover, while important issues relating to intra-EC relationships have been resolved, the rules governing relationships with outside countries remain largely unspecified.

Implications of EC 92 for Tennessee

Linkages between the Tennessee state economy and the EC will necessarily be altered in the 1990s in response to integration. The fundamental questions relate to how these relationships will change, and what the implications of such changes will be. Unfortunately, even at this late date, little is known about how existing linkages will be altered. In part this is due to the absence of detailed information on existing patterns of trade between Tennessee and the EC. However, even if trade patterns were known, uncertainty would remain for two reasons.

First, it is not clear what advantages will be afforded to European producers as a result of completion of the internal market program. Second, there has been a conspicuous absence of EC action on specific legislation pertaining to trade with non-EC countries. Up until this point in the evolution of the EC, the focus has been on establishing an "internal market," as indicated explicitly in the formal title of the 1985 *White Paper*, "Completing the Internal Market." It may be several years before specific legislation is drafted that addresses external trade and external markets.

For the U.S. and Tennessee the primary economic effects arising from European integration can be placed in two broad categories: (1) impacts attributable to changes in financial capital flows and foreign direct investment; and (2) impacts arising from changes in the flow of import and export goods and services. Because of the absence of specific information, much of the discussion below, which focuses largely on the potential implications of these changes for Tennessee, is speculative and is intended to be thought-provoking rather than conclusive. It should be noted at the outset of this discussion that there is considerable debate as to whether integration itself will help or harm the U.S. economy. The chapter then concludes by noting ways in which the state and business community might position themselves to take advantage of or reduce any adverse implications associated with integration of the EC.

Foreign Direct Investment

State and local governments have looked to foreign direct investment (FDI) as an important source of investment and employment generation. Foreign direct investment (which is defined for statistical purposes as investments where a foreign investor controls at least 10 percent of the assets) has increased significantly in Tennessee in the last decade. Between 1979 (the peak of the previous business cycle) and 1987, the share of state employment in all FDI-affiliated enterprises increased from nearly 2 percent to 3.7 percent. The individual member states of the EC have been an important source of FDI for Tennessee as well as for the U.S., with EC-sourced investments accounting for over 40,000 state jobs and nearly 1.6 million U.S. jobs in 1987.

Integration of the EC may have important direct and indirect effects on the flow of FDI and may influence the state's ability to attract and retain investments from abroad. In the two sections which follow, the implications of EC 92 for FDI in Tennessee are explored by first discussing existing in-state direct investment patterns by the EC, and by next speculating on ways in which FDI flows might change in response to integration.

Existing patterns of EC-sourced FDI. Detailed data on FDI are quite limited, particularly at the state level. Data are available for the state that pertain to four of the leading EC nations--France, the Netherlands, the U.K. and West Germany. In 1987, the gross book value of FDI in Tennessee attributable to these four countries represented 71 percent of all European-sourced investment in the state and 30 percent of the value of FDI in Tennessee from all international sources. In terms of employment, France, the Netherlands, the U.K. and West Germany accounted for 76 percent of all employment attributable to European FDI in 1987. This figure represents 47 percent of FDI-affiliated employment from all sources and 1.7 percent of total state employment in 1987. This can be contrasted with employment attributable to Canadian and Japanese FDI, which comprised 20 percent and 9.8 percent, respectively, of all FDI-affiliated employment for the same year.

The only industry breakdown of EC-sourced FDI pertains to the entire U.S. As of 1987, 52 percent of all EC-sourced FDI-affiliated employment in the U.S. was in the manufacturing sector, which is slightly higher than the manufacturing orientation of FDI from all outside sources (48 percent). Retail trade and wholesale trade accounted for 19 percent and 9 percent of such employment. No specific information is available that would indicate whether this employment structure applies to Tennessee. However, given the state's strong manufacturing orientation, it is likely that EC-sourced FDI in Tennessee is even more heavily oriented to the manufacturing sector.

EC 92 and FDI. Many factors influence the flow of FDI, including the rates of return on investments in different countries, prices, exchange rates, and barriers to trade (which induce investment to circumvent such barriers, as with Japanese auto production in the U.S.). Integration of the EC may influence future flows of FDI by influencing these and a range of other factors.

As an example, analysts within the EC have indicated that integration will lead to reduced production costs and expansions in the internal demand for goods and services, which might in turn be expected to raise the returns on investments made within the EC. This raises many questions regarding the general flow of FDI, and the more specific flow of FDI to the U.S. and

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Tennessee. Will investors within the EC exploit internal investment opportunities, and invest less in Tennessee? Would any reduced FDI in Tennessee on the part of the EC be met by increased investment from non-EC investors? Will U.S. and international investors seek to exploit EC-based opportunities (perhaps reducing domestic U.S. investment), or might this exploitation be precluded by potential EC restrictions on outside investments? Alternatively, will EC growth be so robust that it leads to rapid growth in the world economy and hence to increased investment in Tennessee?

Unfortunately, there is very little information upon which answers to these and other questions could be based. However, as noted above, FDI-affiliated employment--both in total, and that reflecting the EC--accounts for only a relatively small portion of overall state employment. Hence, relatively large changes in FDI would be necessary to produce a pronounced effect on the state economy. For example, if the flow of FDI from Europe were to increase or decrease by 10 percent between 1987 and 1995--relative to a continuation of FDI growth consistent with historical growth between 1979 and 1987--the number of state jobs might expand or contract, in total over the eight years, by as much as 3,000 by 1995. Yet such a change would represent only 0.1 percent of estimated state employment in 1995. These rough estimates, which are meant to be purely suggestive, indicate that even dramatic changes in FDI might not have dramatic effects on the overall state economy.

While any aggregate effects of changes in FDI flows may be relatively small, it is important to recognize that the dislocations and adjustments for specific communities, firms, and individuals may be significant. Moreover, it is likely, although by no means certain, that if firms do contract or exit the economy, these effects will be concentrated within Tennessee's manufacturing sector, a sector that has already been subjected to significant structural change.

Export and Import Trade

The worst-case trade scenario arising from integration of Western Europe is the evolution of the EC into a Fortress Europe, a monolith that imposes barriers against non-EC produced goods and services and provides extensive support for EC-based production. Such protectionist sentiment would have serious negative effects on international trade in general, and would likely disrupt the state economy as well. Fortunately, there is no formal basis for this extremely pessimistic view of integration, at least in terms of actions and initiatives taken by the EC to date. In fact, available information indicates that the EC will abide by the General Agreement on Tariffs and Trade (GATT) framework.

The Tennessee state economy has increasingly been integrated into the international economy, with Tennessee products now competing, directly or indirectly, with goods produced throughout the world. As a result, regardless of how the EC evolves, there will be changes in international import and export trade that influence the performance of the state economy. In some cases, integration may open new doors and offer new opportunities. In other cases, Tennessee producers may find that trade opportunities have been restricted or eliminated.

In the discussion which follows, the implications of changes in international trade brought about by completion of the internal market are explored. As with the discussion of FDI above, many of the comments which follow are speculative due to the absence of specific EC policies regarding international trade and because of uncertainty regarding the effects of internal integration.

Implications for the U.S. Many analysts suggest that the U.S., and hence Tennessee, will likely be disadvantaged--at least in the short run--in response to integration of the EC. The primary source of this new EC advantage derives from efficiency and cost-cutting gains attributable directly to completion of the internal market, which translates into price advantages for European-produced products. In general, it is anticipated that trade within the EC will increase at the expense of trade with the non-EC countries. In general, it is anticipated that trade within the EC will increase at the expense of trade with non-EC countries. The efficiency gains and implied price advantages also may allow for the expansion of EC market shares at the expense of domestic producers.

For the six-year period following 1992, the WEFA Group has forecast the macroeconomic implications of EC 92 at the national level under two scenarios. Both scenarios rely on EC estimates of efficiency gains for EC producers associated with completion of the 1992 program, which may translate into pricing advantages vis-a-vis non-EC producers. The scenarios differ in that the first, the "full impact" scenario, assumes that increases in demand resulting from more robust economic growth within the EC are met by increased EC-based production. The second, or "stumble," scenario assumes that increases in EC demand are met by other (i.e., non-EC) international producers. Under the full-impact scenario, growth in the U.S., as measured by growth in gross domestic product, is reduced relative to baseline growth for the 1992-1998 period. In 1998, growth is forecast to be nearly one percentage point below the growth that would take place in the absence of integration. Under the stumble scenario, economic growth over the short run may actually increase for the U.S., relative to baseline growth. However, by 1998, price advantages for EC producers will draw economic activity away from the U.S., reducing our rate of growth.

Domestic producers may face increased competition from relatively lower-priced EC-produced products as goods produced in other countries (and previously destined for the EC) are squeezed into international markets. This crowding would serve to depress prices (or rates of price increase), impose additional competition on Tennessee-produced goods, and dampen demand for Tennessee's exports.

The WEFA estimates (as well as a number of other studies) rely on EC estimates of efficiency and pricing gains for EC producers. To the extent such estimates are overly optimistic and many observers argue they are grossly optimistic the impacts for the U.S. will be overly pessimistic.

Exports and the state economy. Unfortunately, the WEFA forecast is not sufficiently disaggregated to allow identification of specific impacts for Tennessee. To illustrate how integration may influence the state economy, consider the implications for goods produced in Tennessee which are intended for export to the EC or other international markets. Export flows might change in response to integration in three ways. First, domestic producers may face increased competition from relatively lower-priced EC-produced products. This direct effect will dampen the demand for Tennessee-produced goods intended for export. A second negative effect may result as goods produced in other countries and previously destined for the EC are squeezed into international markets. This crowding would serve to depress prices (or rates of price increase), impose additional competition on Tennessee-produced goods, and dampen demand for Tennessee's exports. A third and potentially positive effect may be realized over the longer run as the EC, and world economies expand and are able to absorb more production.

The fact that only limited data are available on the export orientation of the state economy complicates efforts to isolate potential impacts from integration. The *Annual Survey of Manufactures: Origin of Exports of Manufactured Products* (Bureau of the Census) reports that in 1984, 41,700 state manufacturing jobs were directly or indirectly related to the export sector, with 36,000 additional jobs indirectly supported in nonmanufacturing. Unfortunately, more recent data are unavailable, as are data pertaining to countries of destination for Tennessee exports.

An alternative data source is available for 1988 that summarizes export shipments by state of origin to specific countries (including those within the EC), by 2-digit standard industrial classification (SIC). This data source, provided by the Foreign Trade Division of the Bureau of the Census, suffers from three deficiencies that must be taken as caveats in using and interpreting these data. First, state of origin pertains to where products begin their overseas journey, *not* where production takes place. Second, country of destination refers to where goods end their international trip from the U.S., *not* where goods are consumed. And third, 25 percent of all shipment records contain missing information which require imputations from other sources.

These data, with the caveats as noted above, indicate that Tennessee was the origin of travel for nearly $2.5 billion in exports in 1988, a figure which represents approximately 3 percent of gross state product for the same year. The EC was the point of destination for 29.5 percent of Tennessee exports, valued at $728 million. While Tennessee's overall level of exports is less than one-half the U.S. average of $6.2 billion, the share of state exports destined for the EC (29.5 percent) exceeds the average for the U.S. (23 percent). Nearly 25 percent of all manufactured exports from the state flow to the EC, including 27 percent of durable goods exports and 23 percent of nondurable goods exports. Over 30 percent of the state's agricultural exports, valued at $26 million, also flow to the EC. Some of the specific manufacturing sectors with large export shares to the EC include lumber and wood (54.9 percent), leather and leather products (50.6 percent), paper (48.7 percent), tobacco (43.3 percent), miscellaneous durable goods (42.5 percent), and instruments (42.3 percent). Manufacturing sectors with particularly low export shares to the EC include apparel (10.1 percent), primary metals (12.3 percent), rubber and plastics (15.5 percent), and electrical machinery (17.7 percent).

One of the few specific sources of information on how export flows might fare after EC integration is a study conducted by the U.S. International Trade Commission (1989). This study con-

cludes that up to $9.3 billion in U.S. exports could be disadvantaged by various EC directives passed through December 31, 1988--directives which might restrict access to EC markets. The same source notes that 21,900 jobs are associated with each $1 billion in exports. Based on U.S. and Tennessee export flows, as discussed above, and this specific information, it is estimated that Tennessee could potentially lose 2,098 jobs in its export sector. Alternatively, Tennessee may gain as other existing opportunities and new opportunities are taken advantage of.

Imports and the state economy. Many sectors produce goods within the state that are intended for in-state or other domestic markets, rather than for export. Nonetheless, these sectors may be influenced adversely by EC integration, since domestically-produced goods compete with foreign-produced goods in both U.S. and international markets.

Export flows from the EC and other countries, which translate into imports to the U.S. and Tennessee, may, in the short run, be altered in two ways. First, exports from the EC to the U.S. and Tennessee may increase directly as EC producers exploit scale economies and other efficiency gains. This translates into increased direct import competition and industrial dislocation for Tennessee producers. Second, increased exports from EC countries implies heightened competition in international markets that would depress the prices of the range of goods which serve as substitutes for domestically produced goods. This would be an additional source of undesirable import competition for Tennessee producers, although consumers may profit from lower prices.

The state economy may be sensitive to import competition, particularly in nondurable goods manufacturing. Unfortunately, there are no data to provide more specific insights on the import competition implications of EC 92, either at the national or state level.

Effects of EC 92

It is clear that EC 92 will bring about changes in international investment patterns and trade, changes that may very well negatively influence the state economy. To some extent, state-level impacts might be mitigated by Tennessee's limited direct involvement in export trade with the EC. However, it is essential to recognize that due to the internationalization of the state economy, other sectors of the economy remain sensitive to import competition, and the entire state is increasingly reliant upon FDI. Moreover, serious negative impacts for the U.S. economy may produce ripple effects which impinge upon the state economy, again mitigating any salutory direct effects.

Speculative estimates of negative employment effects attributable to EC 92 cast some doubt on the concern that integration will dramatically affect the Tennessee economy. However, these estimates are likely to be imprecise, and it is possible that the combined negative impacts arising from changes in FDI flows, exports flows and import flows may lead to more serious macroeconomic effects. It is also conceivable that the EC has overestimated its gains from integration, and hence overestimated the implied losses to other countries. Regardless, even though the macroeconomic implications of EC 92 may not be particularly pronounced--and many observers within the EC and outside the EC don't expect the effects to be particularly large--there will likely remain important structural adjustments that influence the economic vitality of specific regions, communities, industries, and firms. For this reason, increased attention must be focused on EC 92 and the implications for Tennessee.

Anticipating Integration

It is important that the business community and the public sector position themselves in anticipation of an integrated European economy. Completion of the internal market program may provide disproportionate gains for European producers which may in turn disadvantage economic activity in Tennessee. Moreover, while a Fortress Europe is not likely to develop, some protectionist sentiment will likely be present within the EC, and barriers may be imposed against non-EC products and the activities of non-EC nationals. For example, there will likely be restrictions on auto imports (at least) through the mid-1990s; the EC has considered 51 percent domestic-content requirements for television programming and may require that EC citizens have at least a 51 percent equity ownership in all domestic trucking operations; and there is staunch EC opposition to the importation of hormone-treated meat and dairy products from the U.S. Such barriers would exacerbate any adverse implications associated with completion of the internal market. On the other hand, both in the short run and the long run, new marketing opportunities will arise in the EC that could be exploited by U.S.-based producers.

Unfortunately, in the U.S. and Tennessee, little is being done in anticipation of integration, even at the most general level of heightening an awareness of the internal market program. To the extent actions have been taken, they are largely the actions of specific individuals and large corporate concerns.

Clearly more can be done in preparing for changing international relations. A number of possible actions that could be taken include the following suggestions:

> *A financial assistance program for entrepreneurs wishing to do business in the EC could be developed in the form of a private sector banking consortium that would provide loans to Tennessee entrepreneurs. A program of this type would serve the additional role of increasing the involvement of Tennessee's financial institutions in the international arena.*

- An information campaign could be launched to heighten public awareness of EC 92 and potential positive and negative impacts.

- In conjunction with neighboring states or local government units and development organizations, or even unilaterally, the state of Tennessee could establish a formal EC trade representative and information network. Many neighboring states already have trade representatives in one or more EC countries, and a consortium could be established linking these resources.

- State and local government, the private sector or a public-private cooperative effort could provide general and specific information on the internal market program through conferences, seminars and newsletters. This may serve to inform business and community leaders of specific opportunities and potential dislocations.

- A financial assistance program for entrepreneurs wishing to do business in the EC (or in other international markets) could be developed. This could take the form of a private sector banking consortium that would provide loans to Tennessee entrepreneurs. A program of this type would serve the additional role of increasing the involvement of Tennessee's financial institutions in the international arena. Alternatively, the state could take a more active role through loan provision or loan guarantees.

- Consideration could be given to programs that deal with negative dislocative effects arising from integration, drawing upon JTPA and other resources. This may raise an equity concern if the same assistance is not extended to dislocations arising from other forms of structural change.

- The implications for Tennessee's agricultural sector must be explored in greater detail. Much of the EC legislation pertaining to agricultural trade will be developed more formally in the years to come. Changes to Tennessee's agricultural sector will be complicated by international trends towards reduced government involvement in agriculture production, which will further increase competition in agriculture markets.

  Tennessee producers seeking to establish a foothold in European markets must act now. In most cases, it is too late to make inroads via grassroots investments. Instead, joint efforts between domestic producers and EC producers may be most viable. This would allow domestic producers to draw upon the expertise of their new European partners. Moreover, firms under joint ownership may receive more favorable treatment within the EC than firms held solely by non-Europeans.

Whether or not action is taken on these or other proposals, it is imperative that we pay close attention to the evolution of the European Community in order to better understand the implications for ourselves and the state. ■

References

Bennet, Thomas, and Craig S. Hakkio. "Europe 1992: Implications for U.S. Firms." *Economic Review*. Federal Reserve Bank of Kansas City (April 1989): 3-17.

Calingaert, Michael. *The 1992 Challenge from Europe*. Washington, D.C.: National Planning Association, 1988.

Cechinni, Paolo. *The European Challenge 1992*. Aldenshot, United Kingdom: Gower, 1988.

Commission of the European Communities. "Completing the Internal Market: White paper from the Commission to the European Council. Luxembourg: Office for Official Publications of the European Communities, 1985.

Conway, Carol. "The South's Stake in the European Common Market." Southern Growth Policies Board *Alert* 27 (April 1989).

Emerson, Michael, et al., "The Economics of 1992." *European Economy* 35 (March 1988): 11-219.

Harrison, Glennon J. "The European Community's 1992 Plan: An Overview of the Proposed 'Single Market'." CRS Report for the Congress. (September 1988): 1-30.

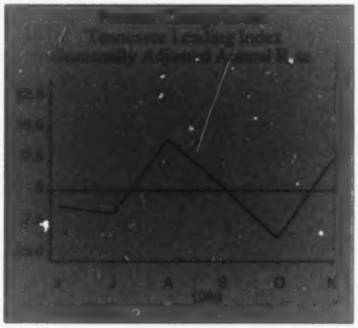
Key, Sydney J. "Mutual Recognition: Integration of the Financial Sector in the European Community." Federal Reserve Bulletin 79 (September 1989): 591-609.

U.S. International Trade Commission. "The Effects of Greater Economic Integration within the European Community on the U.S." Report to the Committee on Ways and Means of the U.S. House of Representatives and the Committee on Finance of the U.S. Senate. Washington, D.C.: International Trade Commission, July 1989.

TENNESSEE ECONOMIC OVERVIEW
(November Index as of January 18, 1990)

Tennessee's leading index of economic indicators rebounded in November, growing 7.5 percent at a Seasonally Adjusted Annual Rate (SAAR). This followed a dismal 11.8 percent decline in October, when all five components of the index fell. November's growth from 113.0 to 113.7 was the result of strength in four of five components. Tennessee taxable sales and taxable mortgages, adjusted for inflation, both grew in November. This is an encouraging sign, since state tax collections have fallen short of projections throughout the current fiscal year. However, the growth rate for November is a comparison between October and November levels. Since taxable sales and taxable mortgages were extremely weak in October, the levels of taxable sales and taxable mortgages in November were quite low, despite seemingly healthy rates of growth. Thus, growth in November does not signal an end to the state's fiscal woes. Among the remaining seasonally adjusted components of the leading index, Tennessee construction starts fell in November, and fewer initial claims for regular Tennessee unemployment insurance were filed. Finally, the U.S. leading index grew at a 1.7 percent SAAR, following one month of decline.

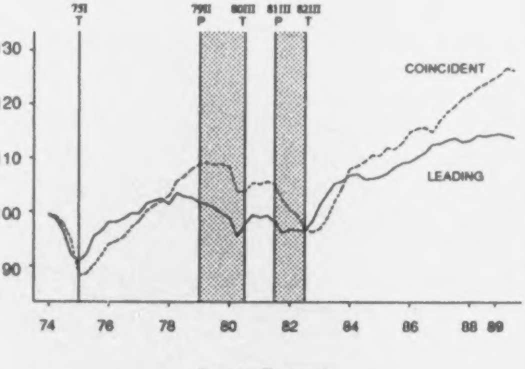
In November, the leading index continued to indicate no clear trend for the Tennessee economy. The time period from December 1988 through November 1989 witnessed six months of increases and six months of decreases in the index, leaving the index 0.5 percent below November 1988, despite growth in the most recent month. This weak long-run performance is mirrored by all seasonally adjusted components of the leading index. Inflation-adjusted Tennessee taxable mortgages and taxable sales fell by 2.1 and 0.9 percent, respectively, between November 1988 and November 1989. Tennessee construction starts fell 15.3 percent during this time period, while initial claims for regular Tennessee unemployment insurance rose 9.5 percent. Meanwhile, the U.S. leading index increased only 0.4 percent.



Tennessee's coincident index of economic indicators fell 3.1 percent at a SAAR in November, from 127.0 to 126.7. The decline resulted from increases in two seasonally adjusted components of the index and a large drop in the third component. The U.S. coincident index grew by a 4.6 percent SAAR in November, following two months of decline. Tennessee commercial and industrial electricity consumption grew as well. However, these increases were more than offset by a decrease in the Memphis help-wanted advertising index. Overall, the Tennessee and U.S. coincident indices have displayed similar performance during the past year, with the Tennessee index growing 2.3 percent from November 1988 to November 1989, while the U.S. index grew 2.4 percent.

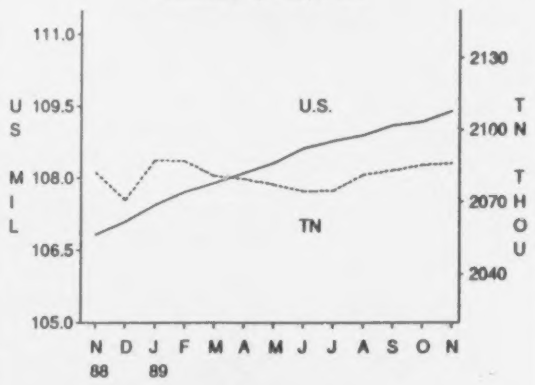
Nonagricultural employment growth in Tennessee continued to lag behind the nation during November. Employment grew only 0.4 percent at a SAAR in Tennessee, while U.S. employment grew by a 2.5 percent SAAR. The cumulative effect of stagnant employment growth in Tennessee is 0.2 percent growth from November 1988 to November 1989. U.S. employment grew 2.4 percent during this twelve-month period.

FIGURE 1
Coincident and Leading Indexes



P = peak; T = trough

FIGURE 2
Total Nonagricultural Employment
Seasonally Adjusted



Note: Calculated from data provided by the Tennessee Department of Employment Security.

Center for Business and Economic Research, College of Business Administration, The University of Tennessee, Knoxville. For further information, call CBER (615) 974-5441. Data reported herein are seasonally adjusted, and therefore may not be directly comparable to data reported elsewhere.

TENNESSEE ECONOMIC INDICATORS
SEASONALLY ADJUSTED

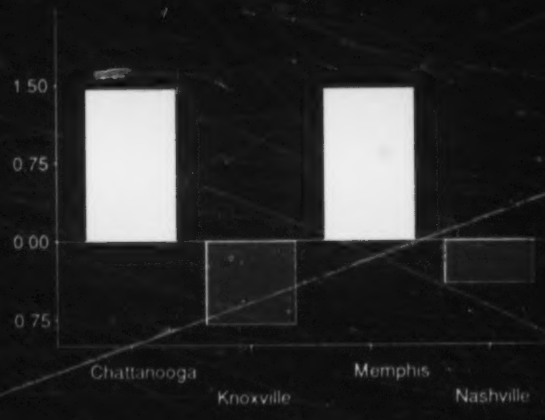
	11/88	12/88	1/89	2/89	3/89	4/89	5/89	6/89	7/89	8/89	9/89	10/89	11/89	1986	1987	1988
US Personal Income (BIL 82 $) (1)	3465.4	3484.9	3519.9	3543.5	3559.8	3558.7	3545.4	3556.8	3569.2	3579.8	3582.3	3593.9	3609.7	3214.6	3321.8	3433.9
% Chg Prev Month SAAR	6.11	6.97	12.71	8.36	5.65	-0.57	-4.19	3.91	4.29	3.62	0.82	3.98	5.39	4.05	3.33	3.38
% Chg Same Month Last Yr	2.88	2.12	4.20	4.48	4.39	4.07	3.72	3.73	3.76	4.05	3.94	3.17	4.16	4.05	3.33	3.38
US CPI,All Urban Consumers (1982-84=100)	120.3	120.7	121.4	121.9	122.6	123.3	124.0	124.2	124.5	124.5	124.7	125.3	125.8	109.7	113.7	118.3
% Chg Prev Month SAAR	3.04	4.06	7.19	5.05	6.07	8.12	7.03	1.95	2.94	0.00	1.94	5.93	4.90	1.92	3.66	4.08
% Chg Same Month Last Yr	4.25	4.41	4.67	4.82	4.97	5.20	5.35	5.17	4.97	4.62	4.35	4.42	4.57	1.92	3.66	4.08
TN Nonag Employment (THOU) (2)	2082.4	2070.9	2087.4	2087.0	2080.8	2079.5	2077.2	2074.5	2074.7	2081.3	2083.2	2085.3	2086.0	1929.9	2011.2	2065.9
% Chg Prev Month SAAR	8.80	-6.43	10.03	-0.23	-3.50	-0.75	-1.38	-1.54	0.12	3.88	1.09	1.24	0.40	3.33	4.21	2.72
% Chg Same Month Last Yr	1.86	0.72	1.94	1.23	0.51	2.57	0.66	0.34	0.35	0.90	1.04	0.85	0.18	3.33	4.21	2.72
US Nonag Employment (MIL)	106.8	107.1	107.4	107.7	107.9	108.1	108.3	108.6	108.8	108.9	109.1	109.2	109.4	99.5	102.2	105.6
% Chg Prev Month SAAR	4.00	[illegible]	3.94	3.05	1.99	2.39	2.34	3.34	1.78	1.33	2.33	0.83	2.47	2.06	2.69	3.31
% Chg Same Month Last Yr	3.24	3.35	3.34	3.16	3.06	3.05	3.06	2.89	2.84	2.77	2.72	2.53	2.40	2.06	2.69	3.31
TN Unemployment Rate (%) (2)	5.6	5.8	6.3	5.5	5.6	5.2	5.6	5.0	4.8	4.8	3.8	4.6	4.8	8.0	6.6	5.8
US Unemployment Rate (%)	5.3	5.3	5.4	5.2	5.0	5.3	5.2	5.3	5.3	5.3	5.3	5.3	5.3	7.0	6.2	5.5
Bank Prime Interest Rate (%)	10.1	10.5	10.5	10.9	11.5	11.5	11.6	11.1	11.0	10.6	10.5	10.5	10.5	8.3	8.2	9.3
US Coincident Composite Index (1967=100)	132.0	[illegible]	131.8	132.0	132.0	132.8	132.5	132.8	132.6	133.9	133.5	132.9	133.4	118.7	127.4	128.2
% Chg Prev Month SAAR	0.92	1.62	-6.66	1.84	0.00	7.52	2.68	2.75	-1.79	12.42	-3.53	-5.26	4.61	2.32	3.15	4.72
% Chg Same Month Last Yr	4.11	3.97	3.21	4.76	4.18	4.65	4.11	3.59	3.11	3.80	3.49	1.92	2.38	2.32	3.15	4.72
US Leading Composite Index (1967=100)	144.1	140.1	146.0	145.8	144.7	145.8	144.2	144.0	144.1	144.8	145.0	144.6	144.7	132.3	140.1	142.8
% Chg Prev Month SAAR	0.84	8.65	7.70	-2.28	-1.17	0.51	-12.40	-1.65	0.84	5.99	1.67	-4.06	1.67	6.55	5.90	1.93
% Chg Same Month Last Yr	2.71	2.87	4.81	3.26	2.33	2.65	1.69	[illegible]	0.77	0.49	0.90	0.35	0.42	6.55	5.90	1.93
TN Coincident Composite Index (1974=100)	123.8	124.5	125.5	125.2	125.7	127.3	126.2	126.7	125.5	126.4	127.0	127.0	126.7	115.2	119.0	123.4
% Chg Prev Month SAAR	16.80	6.91	10.61	-3.20	5.56	15.53	-9.78	4.84	-10.70	9.11	5.36	0.00	-3.10	3.11	3.31	3.64
% Chg Same Month Last Yr	3.71	3.82	3.79	2.82	2.29	3.10	2.76	3.08	1.79	1.57	2.65	1.02	2.33	3.11	3.31	3.64
TN Leading Composite Index (1974=100)	114.0	114.6	116.7	114.7	114.2	116.0	114.0	113.6	113.0	114.2	114.2	113.0	113.7	110.8	113.2	113.9
% Chg Prev Month SAAR	8.26	1.46	2.20	0.21	-4.93	9.50	10.72	-4.10	-5.76	12.82	0.80	-11.77	7.48	2.80	2.17	0.64
% Chg Same Month Last Yr	1.49	2.10	2.42	0.68	0.32	0.88	0.16	-0.93	-1.20	0.28	0.22	-0.79	-0.54	2.80	2.17	0.64
TN Comm & Ind Elect Consumption (MIL KWH) (3)	2246	2283	2255	2270	2299	2121	2288	2356	2262	2290	2347	2340	2382	24323	25121	26792
% Chg Prev Month SAAR	19.67	12.63	-15.82	8.58	16.41	-12.20	15.08	42.36	-38.61	15.04	34.30	-3.72	24.09	3.60	3.28	6.65
% Chg Same Month Last Yr	2.36	4.62	3.82	2.79	2.61	4.45	4.18	7.01	1.40	1.09	3.91	2.40	6.16	3.60	3.28	6.65
Help Wanted Index,Memphis (1967=100) (4)	139	135	146	139	142	150	147	142	138	140	143	148	135	125	142	144
% Chg Prev Month SAAR	82.51	[illegible]	155.99	-49.15	40.90	180.10	-47.05	-33.98	-22.60	8.98	28.97	51.05	-66.82	16.60	13.91	0.93
% Chg Same Month Last Yr	[illegible]	0.74	5.84	-1.43	-4.73	10.64	-1.34	0.71	-2.71	-6.67	2.14	-4.52	2.76	16.60	13.91	0.93
TN Mfg Employment (THOU) (2)	508.4	512.6	[illegible]	511.5	511.2	510.8	510.7	510.8	512.6	511.6	510.4	510.4	510.9	490.8	497.4	508.2
% Chg Prev Month SAAR	2.76	5.87	[illegible]	-2.36	-0.69	-0.65	1.72	1.74	-0.46	2.11	-2.11	0.05	0.64	-0.38	1.38	2.18
% Chg Same Month Last Yr	[illegible]	2.51	2.94	2.44	0.52	0.61	0.53	0.65	0.46	0.68	0.76	0.57	0.50	-0.38	1.38	2.18
US Mfg Employment (MIL)	19.6	19.6	19.6	19.6	19.7	19.7	19.7	19.6	19.6	19.6	19.6	19.5	19.5	19.0	19.0	19.4
% Chg Prev Month SAAR	2.25	1.08	2.47	3.00	7.87	-0.45	1.21	-1.03	-0.06	-0.30	-5.07	-1.34	-1.65	-1.51	0.31	1.99
% Chg Same Month Last Yr	1.92	1.80	2.04	1.95	2.04	1.79	1.62	1.29	1.05	1.13	0.66	0.16	-0.24	-1.51	0.31	1.99
TN Mfg Avg Weekly Hours (2)	[illegible]	[illegible]	[illegible]	41.4	[illegible]	[illegible]	[illegible]	41.2	[illegible]	41.1	41.7	40.9	40.9	41.1	41.6	41.6
% Chg Prev Month SAAR	[illegible]	1.76	-6.16	11.47	-9.97	-1.24	1.06	6.13	-1.42	-11.52	17.06	-20.61	0.65	0.68	0.76	0.08
% Chg Same Month Last Yr	[illegible]	-1.45	-0.32	0.15	-2.17	-1.91	-1.36	-1.17	-0.15	-0.44	0.76	-0.93	-0.09	0.68	0.76	0.08
TN Taxable Sales (MIL $) (5)	3381	3451	3442	3367	3514	3408	3451	3406	3454	3471	3482	3430	3504	35377	37594	39843
% Chg Prev Month SAAR	46.84	27.68	-2.81	-23.32	67.72	-30.86	16.39	-4.72	18.36	5.51	4.40	-16.44	29.00	7.87	6.27	5.98
% Chg Same Month Last Yr	8.45	7.97	7.27	6.34	6.57	2.89	5.31	5.69	4.78	7.31	4.16	4.76	4.64	7.87	6.27	5.98
TN Taxable Sales (MIL 82 $) (5)	2810	2859	2836	2762	2869	2764	2783	2742	2774	2787	2792	2738	2785	32249	33057	33668
% Chg Prev Month SAAR	42.36	22.85	-9.30	-27.01	57.55	-36.06	8.74	-16.33	14.97	5.56	2.40	-21.12	22.98	5.84	2.51	1.85
% Chg Same Month Last Yr	4.03	1.50	2.59	-4.21	0.57	-2.20	-0.04	-4.24	-0.18	2.57	-0.18	0.33	-0.89	5.84	2.51	1.85
Initial Claims For TN UI (THOU) (2)	38.0	32.0	36.0	34.4	34.7	30.8	39.0	39.9	43.3	43.3	37.9	42.2	41.6	510.8	438.1	415.4
% Chg Prev Month SAAR	115.8	-87.3	308.4	-41.7	13.3	-76.5	[illegible]	32.4	165.1	0.3	-80.1	269.3	-16.7	-5.1	-14.2	-5.2
% Chg Same Month Last Yr	16.18	-28.84	-13.93	3.12	-3.85	-2.54	15.87	19.22	47.38	13.96	3.33	18.55	9.52	-5.13	-14.24	-5.18
Continued Weeks Claimed For TN UI (THOU) (2)	[illegible]	147.5	180.1	169.0	[illegible]	163.6	181.3	174.6	178.2	188.5	173.4	202.9	213.1	2300.5	2058.8	2061.6
% Chg Prev Month SAAR	655.3	-97.7	997.7	-53.4	33.7	-49.4	242.5	-38.0	27.5	95.8	-63.2	559.5	79.7	-3.7	-10.5	0.1
% Chg Same Month Last Yr	22.45	-11.45	6.43	-5.37	-5.05	0.74	7.36	2.81	18.31	-2.05	3.75	18.80	5.40	-3.75	-10.51	0.14
Total TN Construction Starts (6)	488.3	438.5	454.2	471.9	386.8	529.6	439.1	446.0	415.7	470.7	467.2	426.6	413.8	5264.1	5329.1	5274.5
% Chg Prev Month SAAR	416.0	-72.5	52.3	58.5	-90.8	4260.1	-89.5	27.2	-59.3	345.3	-8.7	-66.4	-30.6	-12.3	1.2	-1.0
% Chg Same Month Last Yr	16.19	2.43	33.82	9.30	-13.84	23.76	-5.65	-6.56	-3.38	3.86	5.00	0.16	-15.25	-12.34	1.23	-1.02
Value Of TN Constrc Starts (MIL 82 $,NSA) (6)	293	312	276	220	281	385	392	406	291	410	375	294	282	4168	4496	4240
% Chg Prev Month SAAR	-97.1	117.0	-75.8	-93.8	1731.0	3739.7	42.3	54.9	-98.2	7795.2	-73.3	-94.7	-39.8	1.9	7.9	-5.7
% Chg Same Month Last Yr	-2.99	7.61	42.65	-16.82	-17.96	-1.58	-10.87	4.99	-34.33	-8.93	15.61	-25.41	-3.82	1.94	7.86	-5.69

	86/III	86/IV	87/I	87/II	87/III	87/IV	88/I	88/II	88/III	88/IV	89/I	89/II	89/III	1986	1987	1988
US GNP (BIL 82 $) (1)	3712.4	3733.6	3783.0	3823.5	3872.8	3935.6	3974.8	4010.7	4042.7	4069.4	4106.8	4132.5	4162.9	3717.9	3853.7	4024.4
% Chg Prev Qtr SAAR	0.84	2.30	5.40	4.35	5.26	6.65	4.04	3.66	3.21	2.67	3.73	2.51	2.97	2.74	3.65	4.43
% Chg Same Qtr Last Yr	2.11	1.94	1.66	3.21	4.32	5.41	5.07	4.30	4.39	3.40	3.32	3.04	2.97	2.74	3.65	4.43
TN Personal Income (MIL $) (1)	58397	59310	61186	62154	63301	64370	65586	67182	68592	70276	71346	72538	NA	57870	63003	67909
% Chg Prev Qtr SAAR	7.83	6.40	13.27	6.40	7.59	11.71	7.33	10.29	8.66	10.19	6.23	6.86	NA	7.89	8.87	7.79
% Chg Same Qtr Last Yr	8.65	7.77	8.46	8.46	8.40	11.22	7.19	8.09	8.36	7.50	8.78	7.97	NA	7.89	8.87	7.79
TN Personal Income (MIL 82 $) (1)	50913	51218	52029	52143	52572	53676	53540	54223	54830	55554	55730	55885	NA	50603	52593	54537
% Chg Prev Qtr SAAR	3.39	2.42	6.49	0.88	3.02	8.90	-0.97	5.20	4.55	5.39	1.34	1.05	NA	5.32	3.93	3.69
% Chg Same Qtr Last Yr	6.10	5.26	4.49	3.27	3.18	4.70	2.90	3.99	4.37	3.51	4.11	4.07	NA	5.32	3.93	3.69

1. Annual Rate
2. Calculated from data provided by the Tennessee Department of Employment Security
3. Source: Tennessee Valley Authority
4. Source: The Conference Board
5. Calculated from sales tax collections, provided by the Tennessee Department of Revenue
6. Source: F.W. Dodge Division of McGraw-Hill Information Services Company

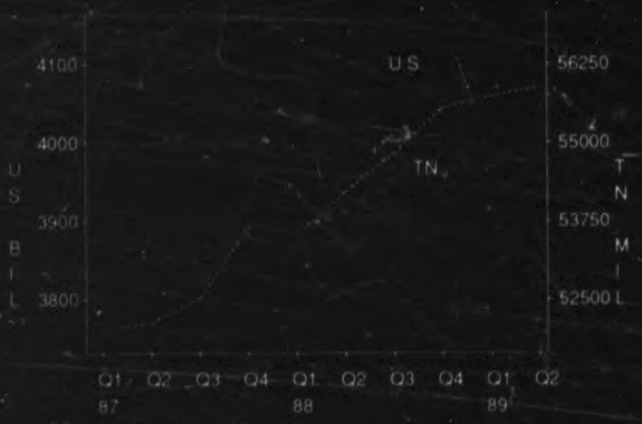
Percent Change in the U.S.
Consumer Price Index
Seasonally Adjusted Annual Rate

MSA Nonagricultural Employment Growth
Nov. 1988 - Nov. 1989

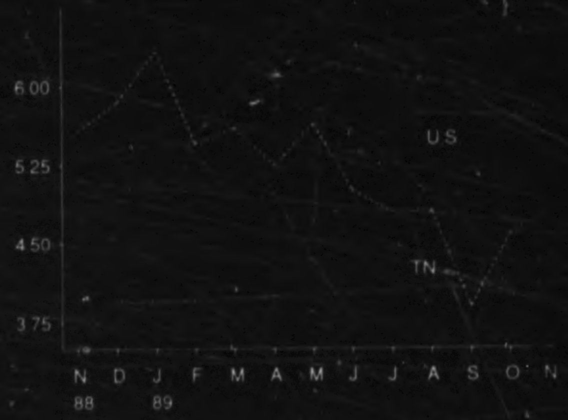


Note: Calculated from data provided by the Tennessee Department of Employment Security

Real Personal Income
Seasonally Adjusted Annual Rate
1982 Dollars



Civilian Unemployment Rates
Seasonally Adjusted



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EASTERN EUROPE:

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C O M M E N T S

Last March I had the pleasure of meeting the rectors of five Eastern European universities. The rectors, who toured The University of Tennessee and three other U.S. universities, visited to see how American colleges encourage economic development.

At the end of their visit the rectors asked us to look for a way in which they could continue to interact with us. We soon put together the Alliance of Universities for Democracy, which you will read more about in this issue.

Fundamentally, this is an alliance of four American universities–UT, Indiana University, the University of Utah and Chapman College–and five Eastern European Universities–in Bulgaria, Czechoslovakia, Hungary, Poland, and Romania. The goal is to help the Eastern European universities do for their emerging democracies what our universities do for ours.

The Alliance will promote democracy and encourage Eastern European universities to develop closer relationships with their communities. In doing so the universities can fully participate and benefit from their emerging democracies. We think that The University of Tennessee and other American colleges will benefit from the Alliance through faculty and student study programs and joint research projects.

I want to thank UT professors Drs. David Hake and Evans Roth for their work in putting the Alliance together. Because of their efforts I'm sure we'll be hearing more about the Alliance of Universities for Democracy.

Lamar Alexander, President
The University of Tennessee

C. Warren Neel, Dean
College of Business Administration

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FROM MARXIST TO MARKET ECONOMIES: A STRATEGY

Since 1985, seven CBA faculty have made thirteen official trips to to Eastern Europe, and eleven East Europeans have been hosted in eight College programs.

In 1982, a meeting was arranged through Evans Roth, then UT Vice Chancellor for Graduate Studies and Research, and Edith Szathmary, Research Coordinator in the Provost's Office, with an official of the Hungarian delegation to the Knoxville World's Fair. That official, Lazlo Kapolyi, was later to become Hungary's Minister of Industry, and in 1985 he invited another participant at the meeting, Dave Hake, Director of the Center for Business and Economic Research (CBER), to visit Budapest as a consultant to the Hungarian government.

Since 1985, seven CBA faculty have made thirteen official trips to Eastern Europe for a total of about seven person months; and eleven persons (academic, government, and business officials) have been hosted in the College of Business Administration for a total of 41 person months.

These interchanges prompted even more communication. On the second of two trips to Hungary, Associate Director of CBER and Economics Professor William F. Fox led a group of five U.S. fiscal policy experts at the Conference on Taxation and Economic Development in Budapest. The proceedings from that conference were published in a CBER monograph, *Taxation and Economic Development.*

Also, in 1988 David Mandy, an assistant professor of economics and research assistant professor at CBER, visited Hungary, where he studied collection procedures for economic data and the use of that data for economic planning purposes.

Understanding economic decentralization in the form of regional economies is the key to understanding American higher education.

Other representatives of the UT College of Business Administration who accompanied Dr. Hake on trips to Hungary and/or Poland in 1989 were Warren Neel, Dean; Ernie Cadotte, Professor of Marketing and Transportation; and Jim Reeve, Associate Professor of Accounting. They visited government agencies, universities, businesses and industries. Through their observations and private conversations with Hungarians, they became acutely aware of the frustrations Eastern European countries were dealing with in terms of economic depression, insufficient and inefficient technology, and government bureaucracy, to say nothing of the repression of personal freedoms.

Economic Decentralization

In early 1990, shifting political structures in Eastern Europe coincided with a grant Drs. Hake and Roth (a Professor of Cell Biology at The University of Tennessee) had been awarded by the U.S. Information Agency. The grant provided funds to bring six Eastern European university rectors to the U.S. to study the role of higher education in economic development. The UT professors hoped that by showing the rectors the role of regional policy research centers in U.S. universities, they might be able to establish similar organizations in their own universities to help their countries through the difficult transition from a marxist to a market economy. The rationale was that understanding economic decentralization in the form of regional economies is the key to understanding American higher education and that a distinguishing characteristic of American higher education is the role it plays in public and private sector development and regional policy formation.

Role of Universities in Regional Development

The dominant theme stressed during the study tour, which took place from March 3-24, 1990, was *The Role of Higher Education in Regional Economic Development*. This agenda included opportunities for discussion with faculty involved in applied science and regional policy research as well as meetings with decision-makers and entrepreneurs in business, industry and government who build business activities and fund such research. Areas of briefing and demonstration included public sector issues like regional economic development policy, fiscal and environmental policy, and private sector issues like technology transfer and executive education.

The study tour began in Washington, D.C., and ended in New York City, with four major campus visits in between: The University of Tennessee, Knoxville, plus state government in Nashville; Indiana University, Bloomington and Indianapolis; University of Utah, Salt Lake; and Chapman College in Orange County, California. U.S. universities on the study-tour were selected based upon the strength of their programs and demonstrated university commitment to regional development policy research and research-oriented service to public and private sector decision-makers in their regions. Selections were also made on the basis of geographic diversity. The four universities have an organized research unit as a member of the Association of University Business and Economic Research, a national organization dedicated to the regional economic policy process. Six East European rectors on the tour were selected to participate through the U.S. embassies in their countries. (See facing page.)

The tour culminated in a press conference at the United Nations Headquarters in New York, where the formation of a university alliance was announced at a press conference called by the U.S. Mission to the United Nations.

Alliance of Universities for Democracy

The Alliance of Universities for Democracy is an organization which resulted from an informal discussion among the study tour group about ways in which they might continue to communicate once the tour had come to an end. Thus the nine participating universities drafted a statement forming the Alliance and designating it as "an association of institutions of higher learning in Eastern Europe and the United States, formed to enhance the role of education in promoting democratic institutions, economic development including technology transfer, decentralized decision-making, and common moral and social values."

Several broad strategies will be used to support these goals. Programs and activities of the Alliance will be rooted in university-based research, education and service; be multidisciplinary in nature; focus on community and national development; be action-oriented; establish or enrich an institutional infrastructure; and promote international partnership between students, faculty, and higher education leadership. Founders of the Alliance are concerned that development and change be sought in a strategic manner, building strong institutional foundations in order to aid continued progress along the continuum of democracy. Though short-term actions will be considered, the focus of the Alliance will be on intermediate and long-term goals and strategies.

Following the tour, founding university representatives expanded upon the goals articulated under the Alliance framework, to include a four-year plan of international faculty exchanges, conferences and congresses, and, in the fall of 1990, the Charter Meeting of the Alliance to be held November 4-7 in Budapest, Hungary. Former U.S. Senator from Tennessee Bill Brock will be the keynote speaker, and delegates from 15-20 U.S. and European universities will attend. Bill Brock has also served as U.S. Trade Representative, Chairman of Republican National Committee, and is Founder and Chairman of the Board of the National Endowment for Democracy, a private, non-profit corporation that was founded to strengthen democratic institutions throughout the world through private, non-governmental efforts.

The agenda for the conference includes a formal ceremony by the representatitves of the original founding organizations to sign an Alliance Charter and adopt a Constitution; a debate on the purposes of the Alliance to help focus on alternative structures and to create and guide a Bylaws Committee; to establish the first round of Centers for Indigenous Assisted Research (CIAR) grants (to be awarded primarily to East Europe (EE) university faculty who are committed to long-range study of an EE problem area, who represent numerous disciplines, and have an intimate knowledge of their region, culture, and capabilities).

The six East European rectors who were selected through the U.S. embassies in their countries to participate in the study tour are, left to right, Tamas Meszaros, Panayot Bontchev, Andrzej K. Wroblewski, Ladislav Kabat, Ljubomir Lilov, and Ionel Haiduc.

HUNGARY: Dr. Tamas Meszaros, Vice-rector, Budapest University of Economics (formerly Karl Marx University of Economics) Budapest, and Dean, College of Business Administration.

BULGARIA: Dr. Panayot Bontchev, Vice Rector for Research at the University of Sofia, and Professor of Analytical and Coordination Chemistry, and Dr. Ljubomir Lilov, Vice-rector for Academic Affairs at Sofia University, and Professor of Applied Mathematics and Mechanics.

POLAND: Dr. Andrzej K. Wroblewski, Rector, Warsaw University, and Professor of Physics.

CZECHOSLOVAKIA: Dr. Ladislav Kabat, Rector of the Federal Agricultural University, Nitra and Associate Professor and Head of the Department of Operations Research.

ROMANIA: Dr. Ionel Haiduc, Rector at the Babes-Bolyai University, Cluj-Napoca, and Professor of Chemistry.

EAST EUROPEAN CENTER ASSOCIATES COUNCIL

Stanley Auerbach, Distinguished Research Ecologist, Oak Ridge National Laboratory

Allan J. Baker, Professor, Engineering Science and Mechanics, UT

Ernie Cadotte, Professor, Marketing, UT

Harlan Caruthers, Jr., Consultant, UT Management Development Center

William E. Cole, Professor, Economics, UT

William E. Colglazier, Professor and Director, UT Environment Center

Oscar S. Fowler, Associate Professor and Acting Head, Management, UT

Roger Jenkins, Director, Graduate Programs, UT College of Business Administration

David A. Johnson, UT Graduate School of Planning

Peter Lizon, Professor, UT School of Architecture

Mark Margetts, President, Environmental Systems Corporation

Anna K. Nabelek, Professor, Audiology and Speech Pathology, UT

Igor V. Nabelek, Professor, Audiology and Speech Pathology, UT

Marija Petrovska, Professor Emeritus, Romance Languages, UT

Jesse Poore, Professor and Head, Computer Science, UT

Jim Reeve, Professor, Accounting and Business Law, UT

Dean Rivkin, Professor and Director, College of Law, UT

Milton Russell, Professor of Economics and Senior Fellow, UT Environment and Energy Resources Center

David Sylwester, Professor, Statistics, UT

Edith Szathmary, Coordinator, Office of the Provost/Research, UT

Alex Vanhook, Professor, Chemistry, UT

Yulan M. Washburn, Professor, Romance Languages, UT

Issues to be addressed at the Conference include *Development of Common Values to Lessen Societal Conflicts; Environmental Protection and Regional Development; Development of Business and Industry; Accelerated Development of and Utilization of Science in Fields such as Medicine, Agriculture, and Engineering; Information Systems Policy, Data Development, and Improved Access; and Improvement of Communication and the Media for Information Dissemination.*

East European Center Established

In addition, an East European Center (EEC) has been established at UT. The Center is a new cross-disciplinary unit which encourages campus-wide research and service activities focussed on Central and Eastern Europe from a support base in CBER, College of Business Administration. The EE Center presently serves as the central agency for the Alliance and is the communication center for the founding institutions. Members of the EEC Associates Council are listed in the box at left. David Hake serves as EEC director and Evans Roth as associate director.

Environmental Agenda

On the heels of the first USIA grant came a second award with Hake and Roth as co-project directors, involving East European participation and tying into the activities of the EE Center and the encompassing concepts of the Alliance. Guided by a government, industry and academic steering committee chaired by Professor Milton Russell, the tour, which was held July 8-25, 1990, had as its theme *Environmental Protection and Cooperation: A*

Dialogue with Central European Officials.

Thirteen environmental officials from eight Central and East European countries were official guests of the United States government on a two-week study tour and symposium to demonstrate how the American political process resolves environmental issues. Countries represented on the tour were Austria, Bulgaria, Czechoslovakia, the Federal Republic of Germany, the German Democratic Republic, Hungary, Poland, and Yugoslavia.

The grant was awarded on the basis of the concept that federal government agencies, industries, state and local governments, special interest groups, and citizen action groups form "centers of influence." Acting in combination, in opposition, or singly, these centers attempt to influence environmental policies. An integrated or multiple systems approach to decision-making is required to encompass multiple centers of influence in environmental policies. Environmental protection, whether in the East or West, is closely linked with region-specific economic and political conditions. Decision-making is only as good as the information upon which decisions are based.

Representatives on the tour met with state and local leaders; university, national lab, and private researchers; officials from firms dealing in pollution controls and from major polluting industries; advocacy groups at the grass roots level; and key environmental representatives in Washington. Meetings and study tours were held in Knoxville, Tennessee; Cleveland, Ohio; Pittsburgh, Pennsylvania; and Washington, D.C.

Central and East European Officials Participating in Environmental Study Tour

AUSTRIA: Dr. Wolfram Tertschnig, head, Department of Environmental Technologies and Environmental Research Policies, Ministry for the Environment, Youth and Family, Austria.

BULGARIA: Dr. habil Ivan Todorov Raev, head, Department of Ecology and Environmental Protection at the Forest Research Institute of the Bulgarian Academy of Sciences in Sofia, Bulgaria.

Mr. Delcho Georgiev Vitchev, diplomatic engineer, Secretary of the Experts Group for the Environmental Group Ecoglasnost in Bulgaria.

CZECHOSLOVAKIA: Dr. Eva Kruzikova, head, Department of Foreign Relations of the Czech Ministry of Environment.

Dr. Svatomir Mlcoch, Chief of Public Relations of the Czech Ministry of Environment.

FEDERAL REPUBLIC OF GERMANY: Mr. Hellmut Koenigshaus, division chief of Toxic Waste Management/Senator for Environmental Affairs in Berlin, Federal Republic of Germany.

GERMAN DEMOCRATIC REPUBLIC: Dr. Uwe Schlenker, scientist in the Department of Geological Sciences, Mining Academy, Frieberg.

Mr. Willi Rolf Weiher, director, Bitterfield Office of Environmental Protection, German Democratic Republic.

HUNGARY: Ms. Angela Lely, interpreter and administrator in the Soviet Commercial Office in Budapest.

POLAND: Mr. Michal Zaremba-Czereyski, head, Bilateral Cooperation Division, Department of International Cooperation/Ministry of Environmental Protection.

Mr. Kazimierz Liszka, Head Specialist of the State Environmental Inspection Center in Krakow, Poland.

YUGOSLAVIA: Mr. Fedor Cerne, Slovenian Ministry of Environment and Physical Planning.

Vesna Vladikovic, Counsellor for Information Systems, Environmental Division, in the Federal Secretariat for Development in Belgrade, Yugoslavia.

Environmental Protection and Cooperation Steering Committee Members

Milton Russell, Chair, Senior Fellow, UT Energy, Environment and Resources Center and Waste Management Research and Education Institute; Professor of Economics, UT CBA, and Senior Economist, ORNL.

Stanley Auerbach, Senior Staff Advisor and Distinguished Research Ecologist, Environmental Sciences Division, ORNL.

Robert A. Bohm, Professor of Economics and Director of Economics Graduate Studies, UT.

William Colglazier, Director, Energy, Environment and Resources Center; Director, Waste Management Research and Education Institute; Director, Water Resources Research Center and Professor of Physics, UT.

Wayne T. Davis, Professor of Civil and Environmental Engineering and Associate Dean of the UT Graduate School.

Leszek Filipowicz, Research Associate, Institute of Economic Sciences, Polish Academy of Sciences, Warsaw.

William F. Fox, Research Director, Center for Business and Economic Research and Professor of Economics, UT.

David A. Hake, Director and Research Professor, Center for Business and Economic Research, and Director, East European Center, UT.

Mark J. Margetts, President, Environmental Systems Corporation, Knoxville.

Frank McCormick, Professor of Ecology and Botany; Director, Graduate Program in Ecology; Director, Ecotoxicology Program; and Assistant Director, Energy Environment and Resources Center, all at UT.

John R. Moore, Alumni Distinguished Service Professor of Economics; formerly Associate Dean, College of Business Administration, and former Head, Economics, UT.

Dean H. Rivkin, Professor of Law and Director, Legal Clinic, UT.

L. Evans Roth, Professor of Cell Biology, and Associate Director of East European Center, UT.

M. Paul Schmierbach, Manager, Environmental Quality, TVA, Knoxville.

Benjamin L. Smith, Executive Administrative Assistant, Tennessee State Planning Office; Staff Coordinator, Governor's Economic Cabinet Council, Nashville.

Site Visits

During the study tour, field trips were made to presentations or briefings conducted by the Tennessee Valley Authority, Environmental Systems Corporation and ITC in Knoxville, Tennessee; Oak Ridge National Laboratory, Oak Ridge Associated Universities in Oak Ridge, Tennessee; Save Our Cumberland Mountains in Jacksboro, Tennessee; a strip mine in Campbell County, Tennessee; Lake Erie and the Cuyahoga River in Cleveland, Ohio; Elrama, Duquesne coal-powered generating plant on the Monongahela River in Pittsburgh, Pennsylvania; the Environmental Protection Agency, Washington, D.C.; and various other non-government agencies in Washington.

Environmental Policy Symposium

Beginning July 23, 1990, a two-day symposium was held in Annapolis, Maryland which explored decision-making, goals, choices, and mechanisms for both national and international environmental protection. The theme of the symposium was stated on the program: "Eastern Europe is in the midst of major changes, some of which will affect the processes by which environmental quality can be achieved and maintained. This Symposium will explore how the environmental enterprise might be conceptualized and structured to conform to new conditions nationally and internationally."

The University of Tennessee will produce a summary of the Environmental Issues Symposium and publish it as a single volume in six languages.

Other East European Initiatives

Several projects have sprung up at UT in connection with the new democratization in East and Central Europe. For example, Marketing Professor Ernie Cadotte will lead a two-week tour in the U.S. for ten Polish policy makers, business owners, scientists, and educators from November 3-17, 1990 to encourage self-sufficiency in new venture development in Poland. The objective is not to train a select group of entrepreneurs on how to start up and run a new venture. Rather, the objective is to help important decision makers see the possibilities of what can be done to foster the creation and successful development of new ventures in their own country. The concern is that these delegates must be sufficiently informed that they can help channel the energies of the Polish economy in productive ways upon their return to Poland.

Dr. Cadotte will be joined by co-project director, Dr. Gerald Hills, Professor of Marketing at the University of Illinois, Chicago Circle.

The objective of the tour is to inform the Polish delegates about 1) legislation which both fosters the development of and guarantees the rights of small businesses; 2) incubation centers which provide a nurturing ground for start-up firms; 3) technology transfer programs which provide a rich source of advanced technologies upon which new industries can be built; 4) private and public development programs which take new technology in its raw form and create commercial grade prototypes; 5) educational programs which prepare young entrepreneurs for the rigors and pitfalls of starting up a new business; and 6) entrepreneurs who began with an idea, invested their lives and personal capital, struggled through the early years of product development and market acceptance, and have recently attained a level of self-sufficiency in their business enterprises.

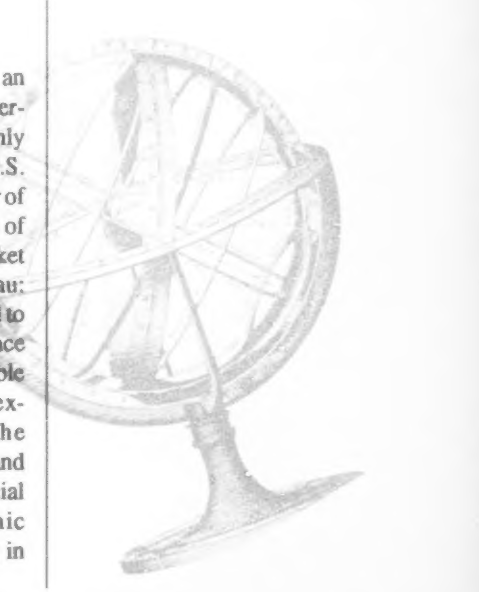
CzechMate Marketing Outreach Program

Other members of the Marketing Department will be part of a project sponsored through the Knoxville Chapter of the American Marketing Association at a marketing conference in Prague next June to demonstrate the significant role that marketing skills will play in an evolving free market economy.

College of Business faculty involved in the project, the CzechMate Marketing Outreach Program spearheaded by Townes Osborne, President of the Knoxville Chapter of the American Marketing Association, are William Locander, Distinguished Marketing Professor; David Barnaby, Head of the UT Marketing Department; and former CBA graduate students Sharon Simon and Jennifer Grayson. UT Professor of Speech and Pathology Igor Nabelek, President of the Czech Arts and Sciences Society, will also take part in the conference.

Alliance Promotes Development on Both Sides of the Atlantic

Drs. Roth and Hake believe that an organization like the Alliance of Universities for Democracy will benefit not only Eastern European institutions, but U.S. universities as well. The concept paper of the Alliance emphasizes the problems of changing a Marxist economy to a market economy in a quote from Rousseau: "Freedom is a food easy to eat but hard to digest." The founders of the Alliance hope to make the recipe more digestible by serving up funds, expertise, experience, and strategies for the democratization of Eastern Europe and thus create a lasting, mutually beneficial interchange of ideas for economic development and national well-being in every participating country. ■



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ASSESSING THE ROLE OF HIGHER EDUCATION IN EUROPEAN ECONOMIC DEVELOPMENT

Higher education in Europe needs help – for training, technology, books, equipment, information and research.

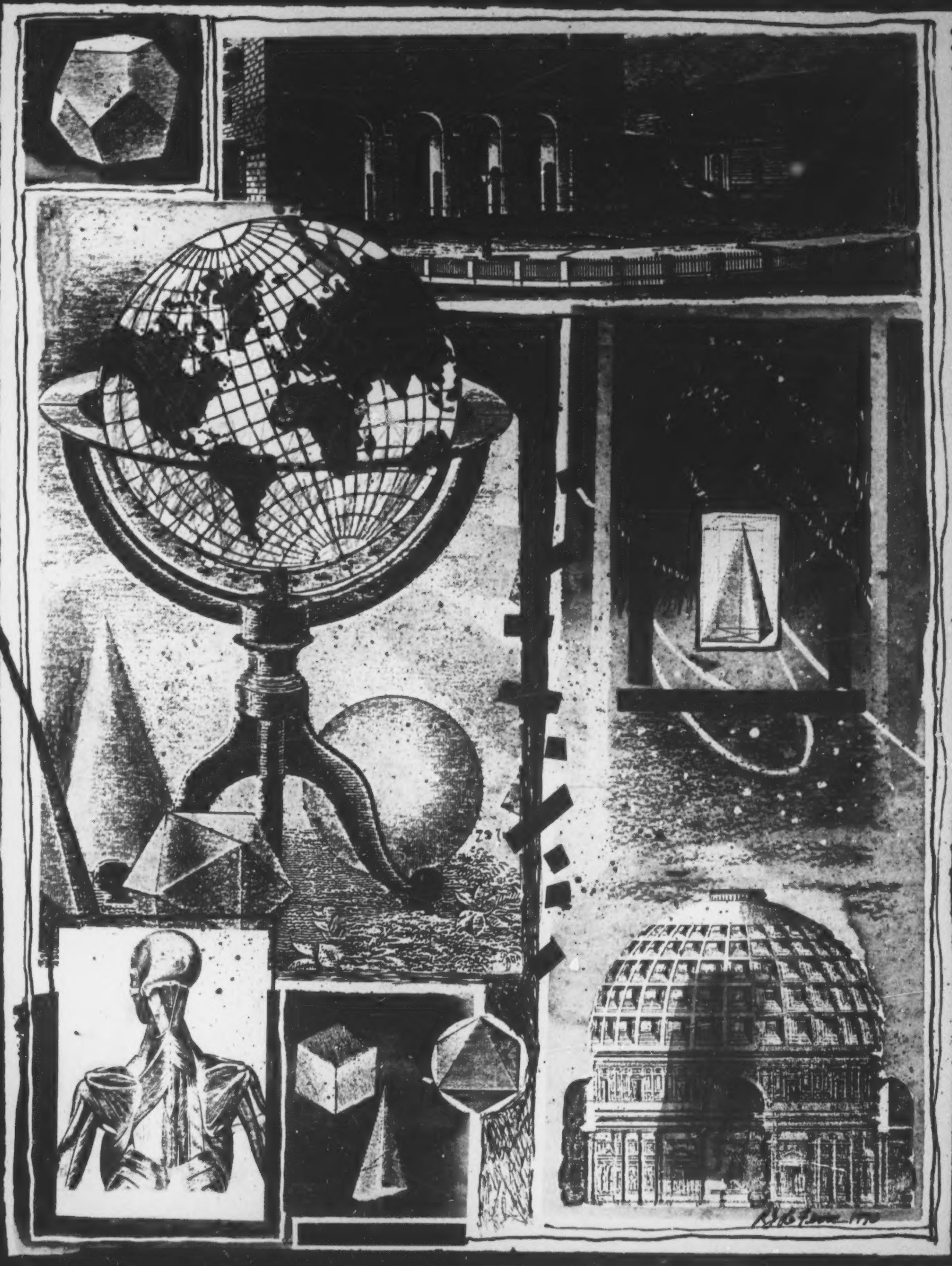
When six European rectors visited the United States last spring on a USIA-sponsored project, they toured research centers in four American universities and talked to officials at various national, state, and local agencies to see how universities interact with government in working for economic development.

There were many enlightening experiences for these university officials, most of whom had served their tenures under the restrictive constraints of communist bureaucracies. After they had had an opportunity to assess and assimilate all that they had observed on their U.S. tour, the ***Survey*** *editors sent them a questionnaire to solicit their comments on their American experience. Four of the rectors responded. A commentary including their edited responses begins below:*

Panayot Bontchev, Vice-Rector,
Sofia University, Sofia, Bulgaria

In Bulgaria, as in other Eastern Bloc countries that have recently undergone vast political changes, most citizens have become acutely aware of the truth of the ancient admonition, "Be careful what you ask for: you may get it." To be sure, the move toward democratization is an answer to millions of prayers, but the implementation is not so easy.

In his assessment of the present condition of education in his country, Panayot Bontchev, Vice-Rector of Sofia University in Sofia, Bulgaria, emphasizes the critical economic situation resulting from changes in a political structure that had been fixed since the advent of



The violent political struggle has caused havoc not only in the economic structure of the country, but also in public health services, the educational system, and countless other social institutions.

communism in that country. For the university, the result is restricted funding. To compound the problem, not only is there confusion about the legal basis for change, but there is no consensus for priorities in making the changes.

The violent political struggle has caused havoc not only in the economic structure of the country, but also in public health services, the educational system, and countless other social institutions. Finding the proper approach to correct the problems may be long and painful. In the meantime, Sofia University continues to train students in the fields of science, humanities, law, and teaching on all levels as well as to train specialists for research in industry, agriculture, government administration, technology, etc.

The Role of Higher Education

Higher education needs help, and Dr. Bontchev sees the Alliance of Universities for Democracy as a beacon in the reorganization of the university system. Among the opportunities Dr. Bontchev foresees are collaboration with American universities in the exchange of students and faculty members; planning of joint research projects; reorganization of the Sofia College of Economics and the introduction of new subjects such as business administration; and improvement of the methodology and technology. "We need well-trained specialists not only for implementation of the state plans and programs," says Dr. Bontchev, "but active, initiative decision-makers, capable of creating and realizing projects on a state, public, and private level." It is the role of higher education, he believes, to prepare highly trained specialists to participate actively in the economic life of the country.

Before *glasnost*, Sofia University was restricted by the state and party bureaucracy and administration from making decisions concerning staffing, curricula, funding, salaries, etc. Now the university has as its goals closer direct contact between the university and corresponding economic organizations, participation of faculty members in a wide range of economic institutions, and more outside contracts for research projects and post-graduate courses. Changes now occurring within Sofia University were partially influenced by Dr. Bontchev's recent participation in the USIA higher education study tour, which gave him fresh insight in terms of reorganizing and restructuring, research funding, and student and faculty evaluation methods.

Ladislav Kabat, Rector, Agricultural University of Nitra, Nitra, Czechoslovakia

"This is a very exciting time for us," says Dr. Ladislav Kabat, Rector of the Agricultural University of Nitra in Nitra, Czechoslovakia. "Now, with democratization beginning, the opportunity exists for open exchanges between faculty, administration, and students. Yet the implications of this new freedom are staggering. We now have the opportunity to create new policies but must break from the old system, where all decisions were made for us."

It will be difficult to compete and overcome the inertia of forty years. In Dr. Kabat's view, higher education has two important contributions to make to the economic development of Eastern Europe: one is to offer advanced programs in dozens of specialized technical fields, and the second is to encourage research. He strongly believes that economic development can be strengthened through theoretical analysis and application of advanced theory in the physical and social sciences.

Challenges and Limitations

Dr. Kabat blames the lack of economic development before *glasnost* on the closed society enforced by communism. Political ideology was allowed to control initiatives of all kinds–religious, scientific and social. Technology was hindered due to a lack of capital and poor access to ideas and competition. To make matters worse, education in Czechoslovakia has been funded in an inflexible manner. The university at Nitra lacks laboratory equipment and is years behind in collecting books and journals for the library. While Dr. Kabat credits the faculty and staff with good basic educations, he says they have not had the same opportunities as their American counterparts that would allow them to gain depth and research experience in their specialties.

Economic Handicaps

While new opportunities become available, the Agricultural University is handicapped by an artificial monetary and exchange system, and money is needed *now* to pay for computers, equipment, visiting faculty, and books from the market economies. Yet the economy will require several years of adjustment before the necessary capital for travel, education and technology can be amassed. "The Alliance of Universities for Democracy could benefit us most now by helping us to obtain money," says Dr. Kabat. "A plan for the economic development in one region of Slovakia is especially needed. Our university would become the center of information and ideas to be used by all the new businesses and government institutions. We would gather data and do analysis for the social structure of our towns, the performance of private and non-private businesses, income and saving investments, regional fiscal health, and the environment. We know these large elements are interrelated. The university can do research on these topics and speed up the development process as well as that of university/government relationships."

It is most important that the Czechoslovakian price structure opens up, according to Dr. Kabat. Resources should flow more with the direction of market opportunities. Both input and output prices must shift to allow Czechoslovakia to compete in world markets. Small business needs encouragement and investment from the outside. The problem is that cost analysis, pricing, finances and banking are all limited. In addition, he says, "The system of property rights must be redefined. This cannot be done at once, but requires a process by which people learn to debate, analyze and work together so that an effective legal system emerges. Gradually, everyone must begin to take risks and attempt new investments in both the public and private sectors."

The Agricultural University of Nitra, located in southeastern Czechoslovakia, contributes to economic development by working with all parts of the agricultural community. The university has active farms where experimental work on animals, crops, and new technology are being carried out, and students and hundreds of graduates manage large farms and food-processing cooperatives throughout Slovakia. The university conducts conferences for farm operators to help them learn new ideas and technology, thereby making efficient use of physical and human resources in the area.

Administrative Needs

Most of the faculty and staff of the Agricultural University have good tech-

Kabat: "Because information and innovation are very important for development and for the investment process, we must encourage more competition and risk-taking within the university and bring that same spirit to the people and institutions of our country."

nical training in mathematics and the sciences. The university has a limited supply of computers and some software, but needs more of each. Their electronic engineers are not in the mainstream of new technology. The faculty needs funds for travel and technology training. Administrative needs include changing the curriculum and the internal governing structure of the University. "The prospect of change is exhilarating–but it also requires great personal dedication from all of us," says Dr. Kabat.

Dr. Kabat credits the West with much generous help, stressing that it is important for Eastern Europeans to meet Western faculty and to study at Western universities. Presently academicians from Texas A&M and the University of Delaware are working with the Agricultural University, and Dr. Kabat would like to increase the number of American exchange teachers.

The years ahead hold critical challenges for Czechoslovakia. "In the past," says Kabat, "our economic and political system promoted a false sense of equality. Now we must create our own institutional management with fewer directives from cultural authorities. We must be patient and seek a better material life, but not lose our values and traditions, as have many Western countries. We are also now free to recognize God in an open way. We are faced with finding and electing our own leaders, but political and economic changes are only *part* of the total excitement we are now enjoying and struggling with in Eastern Europe."

"Our university goal is to work closely with and participate directly in the many changes that must take place in our economy and processes. Farms, towns, businesses, regional governments and work groups are essential for development. Because we realize that information and innovation are very important for development and for the investment process, we must encourage more competition and risk-taking within the university and bring that same spirit to the people and institutions of our country."

Ljubomir Lilov, Vice-Rector, Sofia University, Sofia, Bulgaria

A university serves as a vital force in economic development. It is at the university level where future leaders and professionals are molded and directed. While it is the role of higher education to educate and prepare individuals to be able to create, design, and implement new policy which will determine future development and growth, it is the responsibility of the university to be adequately equipped and ready to serve these individuals who will lead and effect future policy. With Eastern European societies now at a turning point, it has become necessary to redefine the structure, goals, course content and even fundamentals within their universities.

According to Dr. Ljubomir Lilov, Vice Rector of Sofia University in Bulgaria, institutes for higher education have the task of producing highly qualified specialists, without whom social and economic development would be nonexistent. Within this framework, it is necessary to recognize the need to modify the current structure and content of higher education to align with recent developments toward democratization. For instance, the move from a Marxist to a market economy necessitated the need for producing more high-quality professionals in business, management, law, and the humanities. This reorganization is one area where Dr. Lilov believes that the influence of Western countries can help tremendously.

As a contribution to regional as well as national economic development, the Academic Council of Sofia University recently established the Higher Institute of Economics in Sofia. In cooperation with the U.S. Embassy, an Economics and Eastern European Studies course was established for Bulgarian and American students. The courses will be taught by two American Fulbright professors and Bulgarian professors who have had teaching experience in American universities.

Dr. Lilov believes that problems faced by higher education have changed significantly. While the university/government relationship has altered dramatically since *glasnost*, he thinks that the university, while maintaining its autonomous capacity, must continue to recognize the need for active governmental participation. Sofia University is now an autonomous institution but faces many of the same basic problems faced by American institutions of higher education–insufficient funding and outdated and inadequate technology. Sofia University itself has only modest technological capabilities, with approximately 600 personal computers and an outdated IBM-370 type mainframe computer, and no networking system.

An Intellectual Interchange

Sharing ideas, suggestions, failures and successes is where the highly decentralized American universities can be of the greatest assistance to the newly democratized higher education institutes. As compared to the old system, where every university project or activity had to be approved by the party and ministry administration, Eastern European universities are now better able to determine their own organizational structure and course content, as well as share their ideas and problems with American universities which face similar situations.

Developing Mechanisms for a Smooth Transition

Much is being done at Sofia University to promote better communication between the university and economic development organizations to help effect a smoother transition from a Marxist to a market economy society. For example, the administration is currently developing mechanisms for feedback between the needs of specialists in the economics fields and their continual training and development. Dr. Lilov feels that an organization such as the Alliance of Universities for Democracy can be of great value through the vast possibilities for contacts, exchange of student and teaching staff, and links with the U.S. business world. The Alliance will also help expose to EE universities the various methodologies used by American universities in adapting higher education to a market economy.

However positive, the recent move toward democratization has also created uncertainty and confusion. Within the university community, there is fear of academic unemployment due to structural changes. Progress never comes without its price, but Eastern Europeans have accepted the challenge to pay the price.

Tamas Meszaros, Vice-Rector, Budapest University of Economics, Budapest, Hungary

Even before *glasnost*, educational institutions have always been a progressive force in Eastern European society, says Tamas Meszaros, Vice-Rector of the Budapest University of Economics and

Even before glasnost, educational institutions have always been a progressive force in Eastern European society.

Dean of the School of Business Administration. However, as a result of the political changes that have recently swept through Eastern Bloc countries, he hopes for more progressive and productive changes in academics. For one thing, universities in Hungary need more autonomy; and for another, they would benefit from more openness and greater interchange with the government.

Under the old regime, the university's role in economic development was often limited by a lapse in the information system: information either failed to reach university research scientists or arrived too late to allow their participation in economic development projects. What Hungarians hope for now is a closer research liaison between university faculties and government.

Barriers to Involvement

Obviously, change cannot be achieved overnight. Even now, a major impediment to developing economic research is the fact that low pay and stringent teaching responsibilities often preclude faculty involvement in additional research projects. Presently, many university professors are members of various organizations that support the work of the government, but Dr. Meszaros says he would like to see future requests from the parliamentary or governmental decision-makers that could lead to financial assistance for university-generated work.

In comparison to many other countries, Hungary's economy rates low, and Dr. Meszaros attributes this problem to the relatively small number of university graduates. "It is most important," he emphasizes, "to prepare (recent) university graduates to assimilate (the) principles of practical market economies, (and) to get (them) acquainted with independent enterprise decision-making activities."

He believes that an organization like the Alliance of Universities for Democracy would substantially improve the international relations situation by providing a better interchange of information about the market economy and foreign educational systems. At Budapest University of Economics, about 20 percent of the staff has studied in the United States during some phase of their academic careers and thus have had opportunities to participate in U.S. research projects. Since Budapest University is considered the national center for economic education, it therefore has great potential for networking. Its advantages are 1) that it has an institute for postgraduate studies that keeps students aware of new developments in the economic field; and 2) that graduates periodically visit the university to keep apprised of research in progress, creating a mutually beneficial atmosphere.

American educational systems could be a blueprint for developing the new Eastern Europe educational structures, says Dr. Meszaros. He hopes that these new structures would include a wider range of courses, new technological transfer methodologies, and the encouragement of the development of research parks. Among currently significant problems to be solved are restructuring the property system and supporting efforts for privatization. Other areas to be considered are social security programs and the development of a market economy with acceptable social standards. ■

PICKING UP THE PIECES: THE REVITALIZATION OF PRAGUE

by Marija G. Petrovska
Professor Emeritus
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The restoration of Prague to its former glory came just in time for the "velvet" revolution. Ironically, at the same time the Czech iron curtain was being torn down, the communist government had just restored the city to its original beauty.

The Vindobona is the only international train to depart from Vienna's Franz Josef Bahnhof, a station so removed from the center of the city that it is virtually unknown even to taxi drivers. The train has been traveling for years from Vienna to Berlin, via Prague and Dresden.

When I last crossed the iron curtain a few years back, I could feel it and see it: the no-man's land, watchtowers, armed soldiers, dogs, strict passport control, arrogant customs agents. I had witnessed foreign nationals being thrown out of the train to shave their beards or mustaches because their passport pictures did not match their current appearances. I had seen Czech nationals being harassed and taken off the train because they could not exhibit some special permit they were unaware they needed. No passenger was allowed to leave the train while the border guards pounded on the walls, checked under the carriages and climbed on the roofs.

How much has changed? Everything--from the peaked caps of the policemen where the red band has been replaced by a blue one, to the disappearance of the hammer and sickle symbols. Police and customs agents are now unarmed. They are polite and efficient. At the Czech border crossing, the iron curtain was torn down as quickly as the Berlin Wall.

Prague will never be more splendid than it has seemed in these months following the "velvet" or "gentle" revolution. Ironically, the communist government has handed over to the newly established democratic regime a precious jewel that has been recently restored to its original beauty.

Several years ago, the order had come from above to restore the capital city to its past glory by February 1988, the 40th anniversary of the 1948 communist coup. Workers were obliged to toil in three shifts. To accomplish this task, specialists had been called to Prague from all over the country. When I visited Czechoslovakia in 1987, I never saw a single facade in the Old Town Square because of the scaffolding. Even the pavement was being replaced by cobblestones, and large pedestrian zones were being built.

Radiance Restored

By the date set by the government, the magnificent coronation road which begins at the old Powder Tower, crosses the Charles Bridge and ends at the Royal Castle, had indeed been restored. Thus, after living eleven years in Prague and returning there almost every year since 1956, I was able to admire its breathtaking beauty for the first time in 1990.

It is of course just a coincidence, but somehow the glowing radiance of the city physically reflects the hope and euphoria of the population. The National Theatre, built in 1883 by the Czechs for the Czechs and called since then "the golden chapel on the Vltava" had very little gold visible under the grime accumulated in a century. The government closed it down and the restoration work took six years. Now it is again a showcase jewelbox, and what a joy it was to see there the performance of the most famous Czech opera, Smetana's *The Bartered Bride*.

Memories of Mismanagement

Another valuable legacy of the old regime to the newborn democracy is the efficient and well kept underground transportation system. But the eyesores are many--though fortunately not all readily noticeable to tourists. There is the recently built hideous concrete TV tower which spoils the magnificent view of the city. Drab and ugly are the prefabricated housing projects that surround the city and which are already falling apart. Plants built all over the country spew poisonous fumes from their smokestacks, polluting the air and contaminating rivers. Pilsen, the once lovely idyllic landscape of Southern Bohemia, has become a cesspool dotted with ugly factories and drab tenements that surround once pleasant old towns like Tabor or Ceské Budéjovice. All these eyesores are a reminder of 40 years of mismanagement and the lack of common sense shown by the communist bureaucrats.

The road network is not bad, but there are practically no service stations or rest stops. If there is one, it does not have a restroom. If the traveler asks what kind of toilet is used by the attendants, they shrug and point to the neighboring fields. The lack of hygiene is still shocking, even in Prague. The resulting condition has been called the "balkanization of Czechoslovakia." Although exchange rates are extremely advantageous for consumers, this situation will probably not last much longer. The population is already worried about inflation and unemployment in the near future.

Freedom Brings Culture

May is the month of the International Music Festival, and this year it was particularly exciting. Rafael Kubelik, who had refused to return to Prague since his defection in 1948, conducted the opening concert featuring Smetana's *Má Vlast* (My Country). The second highlight was the concert I was privileged to attend: the world-famous pianist Rudolf Firkusny played in Prague for the first time since 1946. The large Smetana concert hall was filled to capacity and just before the beginning of the concert, Vaclav Havel entered the presidential box. Twelve hundred people leapt to their feet and gave him a long-standing ovation. The 78-year-old Firkusny, visibly moved, played a flawless rendition of Martinu's (another Czech emigre) *Second Piano Concerto*. And after the intermission, Havel returned to the box with Firkusny on his

"This is a man who speaks the truth even more than I do."

right and Kubelik on his left. Another prolonged warm ovation ensued amid shouts of "bravo" by the enthusiastic audience: bravos for the two great musicians who achieved international recognition in voluntary exile and for the dissident playwright who became president in spite of himself, by always speaking the truth. As Pope John Paul II put it during his recent Prague visit: "This is a man who speaks the truth even more than I do."

During my last stay in Czechoslovakia in 1987, I was pained not so much by the poor service, lack of organization, the laziness and the indifference of the population, but rather by the attitude of the Czechs toward foreigners and compatriots alike: hostile, rude, withdrawn, envious–even hateful. It made me feel so uncomfortable that I decided to strike Czechoslovakia from my future travels. Thus, before visiting my former fatherland after the velvet revolution, I was doubtful and apprehensive about the attitude of the Czechoslovak youth, born about or after 1968. How would they react to all those radical political changes, to the new responsibilities they would have to face, to the sacrifices which would be required during the restructuring of the economy in their country?

My impressions are very positive indeed: the service in hotels, restaurants and stores has greatly improved, thanks to the young people who were recently hired. The willingness to work hard has spilled over to the offices where the new executives seem to work long hours, hold conferences and eagerly listen to advice. And the new politicians, almost all of them amateurs, compensate for their lack of experience by sheer drive and the desire to learn. Sixty-four laws have been passed by the new Parliament from December 1989 to May 1990–not a bad record.

Attempts to restructure are not limited to the capital city, as two trips I took to Northern and Southern Bohemia have revealed. Karlovy Vary (Karlsbad in German), once the most exclusive spa in Central Europe, had been proletarized and disfigured to obliterate its glorious bourgeois past. One of the "deluxe" hotels, the Imperial, had been literally occupied by the Russians: only Soviets were accepted. They were charged only $7 a day per person for room, board and cures. All this cost the Czech government $1 million a year. The renovation of the Imperial has not yet begun, but the lavish Grand Hotel Pupp, renamed Hotel Moskva in 1948, is being feverishly refurbished to attract Westerners.

One of the loveliest spots in Bohemia is Cesky Krumlov, situated on the river Vltava. It is dominated by the second grandest castle in Czechoslovakia. A small medieval town is nestled at the foot of the fortress which in the 16th century was transformed into a Renaissance palace. It belonged to the famous lords of southern Bohemia, the Rozemberks, to the Emperor Rudolf, and finally to the Princess Schwarzenberg, who owned it until 1947.

I left Prague two days before the elections, which were, as President Havel put it, the first really free elections since the year he was born–1936. It was already obvious that Civic Forum would receive a commanding majority of the popular vote and that Vaclav Havel would continue for another two years to be the reluctant president of Czechoslovakia. I hope he will also continue to tell the truth to his people, thus following in the tradition of Masaryk, who chose for the first republic the motto "Truth shall prevail." His bronze statue, an anathema to Nazis and communists alike, stands again, gracious and dignified, on Wenceslas Square, presenting a worthy counterpart to the St. Wenceslas equestrian statue which survived all the former occupations, bloody repressions and dictatorships. ■

POLAND: THE STRUGGLE FOR POLITICAL RE-EMERGENCE

by Leszek Filipowicz

Visiting Research Associate, Polish Academy of Science, and Junior Fulbright Scholar

It is almost impossible to overestimate the importance of recent changes in Europe. For the first time since WWII, we have a chance to rebuild the unified world for mutual safety and mutual benefits.

When I left Poland in July 1989 to study at The University of Tennessee as a Junior Fulbright Scholar, the Iron Curtain was still in place, a visible symbol of post-war order in which the world, as in the "Rambo" movies, consisted of good guys and bad guys. I was a visitor from "the communist country."

A month later, Poland was not "communist" any more. We changed our government in the peaceful and democratic way, and then the painful process of transformation began. Historically, Poland had been the first block in the domino chain; then came Hungary, East Germany, Czechoslovakia and Bulgaria. Finally, since the violent revolution overthrew the Ceausescu regime in Romania, we are seeing gradual changes in the Soviet Union, where the spirit and direction are to a large extent the same as in all East European countries.

The logic of all these changes is very clear: not ideology, but the *people* must decide the ways the society should be organized.

The Failure of Real Socialism in Poland

Briefly, the "real, Soviet-style socialism" is characterized by two distinctive features: political and ideological monopoly of the Communist Party and almost full domination of the state over the economy. Nevertheless, in this context it seems clear why the reform of real socialism is impossible. (By "reform" I mean the process of improvements within the system–the process that does not affect the essential, basic features of the structure.) Changing these features would simply mean transformation to another system.

In real socialism it is impossible to improve significantly the efficiency of the economy without abolishing state domination over its performance; it is impossible to fulfill society's expectations without canceling the party's political and ideological monopoly. Actually, we have a joke in Poland to the effect that socialism is nothing else but the longest way from capitalism to capitalism.

Socialism was established in Poland in 1945. Two decisive factors in this process were the force of the Soviet army and the implicit agreement of Western superpowers. The relatively small Polish communist party became important only because it had the support of the Soviet Union. It was not until they began to dominate the government and nationalize the economy that the Polish communists started to gain real power.

Real Polish Socialism

The initial period of real Polish socialism, between 1945 and 1956 (the year of the first serious crisis), was a time of relatively dynamic growth of the economy based on increasing utilization of the labor force and natural resources. It was also a time of social change: because of wartime losses in the urban population and because of industrialization, there was a large internal migration from rural to urban areas. People with agricultural backgrounds created the new Polish working class employed in state-owned, mainly heavy-industry factories. For these people, leaving the countryside was a real promotion. This was because there were not enough jobs in agriculture in rural areas, and the standard of living, although still generally very low, was higher in the urban areas.

In this initial period, the basic structure of the Polish economy was created and the basic principles of regulation adopted. The whole economic activity was to be based on the principle of planning. Hungarian economist Janos Kornai, described this kind of system, which he calls "the command economy:"

The national plan is elaborated by the Central Planning Board and approved by the highest political bodies. After that, the plan is strictly mandatory. The economy is governed by bureaucracy, organized in the multilevel hierarchy. The plan indicators at the top are successively disaggregated from higher to lower levels. At the bottom, the state-owned firm gets hundreds or thousands of mandatory plan indicators each year, containing four sets. First, the set of output targets, whenever possible, in physical terms or in aggregate real terms expressed in base year fixed prices. A multiproduct firm may get as many output targets as it has products or groups of products. Second, input quotas, again in physical or real value terms: This set contains the rations of the centrally allocated materials and semifinished products, indicating not only quantity and quality, but also the supplier obliged to deliver. There are also labor quotas and wage funds. Third, mandatory financial indicators concerning production costs, profits, credit ceilings. Fourth, a list of certain actions to be taken by the firm: introduction of new technologies or products, investment projects, and so on. Although all plan indicators are compulsory, certain "priority indicators" are enforced more strictly. Typically this is the case with at least one indicator of aggregate output, with some ceilings on wage expenditures, and sometimes also with a few specific export targets. The flow of information is not unidirectional. The firms submit proposals in the course of plan elaboration and they report results during and after the plan period. The more important flow, however, is the flow downward: commands given by the higher level of hierarchy.

Fragile Stabilization

The two decades between 1956 and 1980 we can call the period of "fragile stabilization," when relatively few changes were made within the system. Stabilization was fragile because the sources of extensive growth were already exhausted, and bottlenecks and shortages

The 1980s were the decade of unsuccessful reforms. After the shock of martial law, apathy and a feeling of hopelessness dominated the social atmosphere while the economic situation grew even worse than before.

started to appear in the economy. The economic problems led to periodical social crises--in 1970, 1976 and 1980. Each crisis ended with a change of government, but in fact it was only a "change of faces." The common pattern of behavior of governments following the crises was to promise economic and political reforms and then, when the situation began to improve, to reinstate virtually the same policy that had caused the crisis to begin with. The reason for this myopic strategy was very clear: the communists could not implement real reform because they could not and did not want to change two things: state domination over the economy and the party political and ideological monopoly.

The most serious economic crisis occurred in 1980. The cumulative effects of the years of inefficient, wasteful economy, together with the problems caused by enlarging foreign debt, brought about a significant decrease in the standard of living. The wave of strikes in the summer of 1980 gave birth to the Solidarity movement.

Solidarity

The sixteen months between the summer of 1980 and the imposition of martial law in December 1981 were critical for various reasons. First of all, the rise of Solidarity established the precedent: it was the first legal organization of the opposition in the communist bloc. And we should remember that during this time Brezhnev was still the leader of the Soviet Union--the same Brezhnev who had made the decision to send the Warsaw Pact armies to Czechoslovakia in 1968 and the Soviet Army to Afghanistan in 1978. The rise of Solidarity and the strength of this movement was the first break in the communist party monopoly. A tremendous incentive to the people's activity, Solidarity created the "countervailing power" for the party. Many people started to believe that we had a chance for a continuous, gradual process of improvements.

The Solidarity movement was essentially a revolution, although there was no violence involved. But revolutions have their own logic: revolutionaries either win or they turn to radicalism. With Solidarity it was the latter case. The worsening economic situation led to another wave of strikes in the fall of 1981. On the thirteenth of December, 1981, martial law was imposed.

According to some sources, the imposition of martial law by Jaruzelski was a method of avoiding the intervention of Warsaw Pact armies. Supposedly, there were detailed plans prepared in Moscow for the invasion of Poland with the use of Soviet, Czechoslovakian and East German divisions. Obviously, had those plans materialized, it would have been much more dangerous for Poland and Europe than the martial law imposed by the Polish army.

The 1980s were the decade of unsuccessful reforms. After the shock of martial law, apathy and a feeling of hopelessness dominated the social atmosphere while the economic situation grew even worse than before. It was hardly a favorable environment for reforms. Yet, during this time, the party finally decided to change the system of command economy by the reduction of direct control of the state and expansion of the use of indirect means like interest rates, taxes, subsidies, etc. Some enterprises became

Changes in politics and institutional structures provide a framework for contacts and cooperation. But equally important are changes in human minds, in understanding other people and other countries. Understanding is the precondition for tolerance, and tolerance creates the best path to a unified world.

self-financing, implying that they were pursuing profits. Managers were to be independent, accountable to the workers' council and intent on increasing profits. Many prices were to be set by the market, and competition was significantly expanded.

The people implementing these reforms were "bureaucratic reformers," communist party members of so-called "liberal" orientation. These people really wanted to change the system; however, they believed that it was possible simultaneously to maintain a market economy and a political system still based on the party monopoly. Such a compromise could not and did not work.

There is an important source of resistance to changes in real socialism. This system created a class of people who are very interested in preventing reforms because certain individuals and groups benefit from the command system in terms of power, social position and material advantage. Benefits accrue not only to top-level officials, but also to party and administrative middle-level apparatus. The passive resistance of this apparatus cannot be overcome by a simple order. As a result, even when the party leadership is reform-oriented, there is no guarantee that the reform will be implemented. Only a change in the system and canceling the party political monopoly can bring about real changes in the attitudes of the administrative apparatus.

The sluggish performance of the Polish economy in 1987 and 1988 again caused social turmoil and a wave of strikes. Social support for the illegal Solidarity was growing. Under these circumstances the government was forced to agree to a dialogue with the opposition. The most important results of the so-called "roundtable talks" between the government and Solidarity were the government's agreement to relegalize the Solidarity movement and to schedule the partly free elections for June 1989. Results of the elections were that the Solidarity has won almost everything that it could according to the earlier agreements: 35 percent of the seats in the lower, more important house of the parliament, and 99 percent of the seats in the senate.

What Do We Really Need?

Poland and Eastern Europe need help. We have to rebuild our inefficient economies and restructure our systems of property rights; and most of all, we have to build the democratic political systems appropriate to the traditions of the Eastern Bloc countries. There is a long way to go, and we are just beginning. To accomplish all of this we need capital, technology and knowledge: we need foreign investment. But most of all we need to borrow from the experience of other countries. We need contacts, formal and informal links between individuals and social organizations. We need friendship and understanding.

This is not to say that East European countries should be regarded as Cinderellas. We have important assets, and some of our experiences can be valuable to other countries as well. Although our present situation is difficult because of the developments of the past, I strongly believe that in the future we can be equals among members of the community of democratic and developed nations.

It is almost impossible to overestimate the importance of recent changes in Europe. For the first time since the Second World War, we have a chance to rebuild the unified world for mutual safety and mutual benefits. This is an overwhelming task for politicians. But they will not be able to achieve it by themselves. They can only build on the links among the people; only individuals, not countries, can communicate and make friends.

Changes in politics and institutional structures are extremely important. They provide a framework for contacts and cooperation. But equally important are changes in human minds, in understanding other people and other countries. Understanding is the precondition for tolerance, and tolerance creates the best path to a unified world.

What I Am Taking to Poland

My recent stay in the United States can be thought of as one of the many links between our countries. After all, I know much more about the United States now that I had known before, and in Poland I am going to share this knowledge with others. Similarly, I hope that I helped some of the people that I met in the U.S. understand more about Poland. For me, the opportunity of coming to the United States as a Fulbright Scholar was one of the most important chances that I have had in my life so far.

I have just returned to Poland after spending eleven months in America and as yet I cannot evaluate fully the impact of this period on my life. But I do know that my previous expectations have been surpassed. During my stay I learned a lot and I experienced a lot. I met many wise people who were willing to help me and to share their knowledge with me. I found friendship and understanding, and of all my experiences, this is the most valuable one I have brought back to Poland with me. ■

ECONOMIST IN A NEW ECONOMY

by Ewa Gurne

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The restructuring of the national economy promises a much brighter future for young Polish economists.

For many years I had a dream to study abroad. In 1983 in Warsaw, when I finished my concentration in Planning and Statistics and a minor program in the Theory of Economy, it seemed that realizing that kind of dream was almost impossible. First of all, there were official problems connected with getting a passport and a visa, with finding a sponsor and a sponsoring university. Secondly, there was really no need to go abroad to study economics because the long-established methods of running a socialist enterprise were firmly in place and the whole economic system in Poland was not prepared to change.

Besides, in Poland, economics was not considered a real job. The whole process began at the moment you chose your field of study. It was the consensus that when you decided to study economics after your maturity exam, it was because you were unable to study anything more complicated–for example, mathematics or medicine. (Sometimes this opinion was not groundless, but happily, it was false in most cases.) Another problem was that during four years of studying we acquired a lot of theoretical knowledge which was very often not applicable to practical situations, so applying the knowledge on a job was often difficult.

After graduation there was the universal problem of finding a satisfying job. Very often young people who had earned degrees in economics were working as accountants or clerical support staff in enterprises where they should have had more responsible jobs. With that kind of situation (especially in government-owned enterprises) and relatively low salaries, there was low morale

> *The new authorities apparently realized that there was no possibility of changing the economy without changing the people's attitudes and educations. They instituted changes by putting an emphasis on the young economists because they saw in them the hope for saving the suffering Polish economy.*

among the employees and a consequent low public opinion of people in those positions. In addition, there was no sliding pay scale or evaluation of employees' potential: all goverment-employed workers were hired at the same low salary. This inequity made them dependent on their relatives for a good portion of their mature lives.

So there was little or no motivation to go abroad to study economics because it would not increase your job security or improve your status or your pay scale once you returned to Poland. Another problem was that your overseas experience would be virtually useless because of the big differences between the European and American economic systems.

An Economic Evolution

Now, during the past five years the Polish economy has undergone an evolution. The new authorities apparently realized that there was no possibility of changing the economy without changing the people's attitudes and educations. They instituted changes by putting an emphasis on the young economists because they saw in them the hope for saving the suffering Polish economy. The process of reprivatization, of a new accounting system, of creating new entrepreneurs, was very difficult. Students who had earned economics degrees at different Universities were not always prepared to work under the new rules. Therefore there was an urgent need to create completely new types of schools which could quickly train students to meet the demands of the new system.

One of those new schools was my business school in Warsaw which had been established by Professor Andrzej Kozminski. Originally the school had been a separate private school, and now, after the sudden changes at the University of Warsaw, Rector Andrzej Wroblewski (who participated in the USIA-sponsored university tour by East European rectors last spring), decided to make the economics school a part of the university.

It took two years to organize the school. Professors who were invited to work on the program for the first year decided to copy the type of Master's of Business Administration (MBA) program which is taught at American universities because it was exactly that type of course that would complement the academic knowledge of the future business leaders. The opening of the school coincided with President George Bush's visit to Poland last fall. During his visit the President promised to give Poland ten scholarships for students to study management and business science at different American universities. My school received three scholarships, and I was one of the recipients.

Moving to Tennessee

I came to the United States as the Alexander Hamilton Scholar in Management. It was a nice surprise that I was invited to study at The University of Tennessee. My host at UT was Dr. David Hake, Director of the Center for Business and Economic Research. I also had two academic advisors–Dr. Ernest Cadotte, marketing professor, and Dr. Jim Reeve, accounting professor.

It is not so easy to move to America for six months and only on a month's notice. Fortunately, I went through what could have been a difficult situation without many problems. My program at UT was structured around the MBA curriculum. My marketing class with the American MBAs was taught by Dr. Sarah Gardial. Until the last year there had been almost no need for a marketing background in Poland, and I didn't realize how strong the customer demand might be in a free market economy. Now I can foresee the future for a free market economy in Poland and prepare my company for the new situations. As vice president of SANDRA, Ltd., I supervise marketing operations.

Another of my courses which promises to be very helpful in the immediate future is the accounting class taught by Susan Cumor, one of most patient teachers I have ever had. I owe it to Susan that I survived all the case problems and made it through the 400-page program of the class. But all my difficulties soon became my assets, because now Poland has to change its accounting system to comply with the European one that differs only in small details from the American system.

At The University of Tennessee, I also attended a computer class taught by Dr. Melanie Bowers. Happily, Poland is already in the process of computerizing, even though we did not use computers during my coursework in school. But now I am much more familiar with the computer and I plan to computerize all the accounts at my business. I will also encourage the other employees to use the system. I know there will be some resistance at first, but I hope that the change will prove to be effective in the future.

Internships

Another part of my program involved serving internships in different American companies. Some of them were in California and some of them were in Knoxville. In California I was introduced to J. Ralph Parker, president of the oldest brokerage firm in California–Alex Brown & Sons. Ralph spent long hours showing me how his company works and explaining practical details about the role of venture capital in the economy and the way brokers buy and sell stocks and bonds on the market. In Poland there had previously been no need for such companies, but the process of selling state-owned enterprises has now begun, and the first stock market will be in operation in Warsaw at the end of this year.

In Oak Ridge I visited another kind of company which was much closer to my kind of activity in Poland. The Lockwood Green Company is doing almost the same kind of designing work as my company in Poland, but using a completely different, computerized method. This was exactly the sort of enterprise I wanted to see. I realize that the price of the computer system is so high, I don't know any Polish designing and architectural company that could afford to buy it, but just having some ideas about how it should work will help me in my future business activities.

Going Home

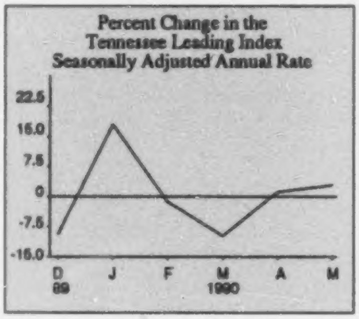
As I leave this country, it is too early to evaluate my stay here. I am convinced that I go home with a much different perspective than I had before, mainly concerning my profession, but not that alone. I met so many wonderful people in the U.S., and I was a guest of so many nice families, that it gave me hope for the Polish future. The difficult economic situation in which Poland now finds itself influences not only professional lives, but in many cases the private lives of its citizens. I go back home convinced that nothing is lost for good in my country and that after working on our economy we can put our disappointments behind us and once again look forward to better prospects for the future.■

TENNESSEE ECONOMIC OVERVIEW

(May Index as of July 19, 1990)

Tennessee's leading index of economic indicators rose moderately in May by 3.0 percent at a seasonally adjusted annual rate (SAAR). This is the second monthly rise, which optimistically foreshadows the economy six to nine months from now. Three of the five components of the leading index were strong in May. However, both real taxable sales and initial claims for unemployment insurance in Tennessee displayed weakness for the third consecutive month. With the sharp rise in May the number of initial claims for unemployment insurance has now reached the highest monthly level since September of 1986. Despite these two weak indicators, the three positive components provide overall optimism for the Tennessee economy. In particular, Tennessee's construction sector had a strong month in May. Construction starts increased, following a very sharp rise during April. After adjusting for inflation, taxable mortgages increased substantially in May, reversing the decline in April. Finally, the U.S. leading index increased by 9.5 percent at a SAAR, following a slight fall in April. This provides confirmation that, despite recent slow growth, the U.S. economy will continue to move forward.

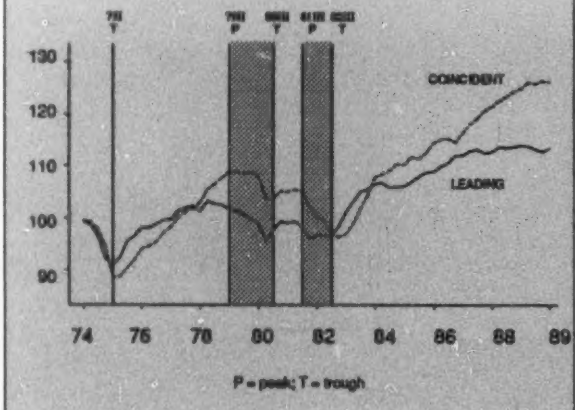
While the leading index predicts moderate growth in the coming months, Tennessee's coincident index of economic indicators reveals that the economy was sluggish during May. The fall of 6.3 percent at a SAAR confirms the weakness predicted by the leading several months ago. There is a sign of optimism, however, in that two of the three components rose. The only component to decline in May was the Memphis *help wanted* index. This decline was sharp enough to offset the increases in the other two components, but it comes after two months of sharp increases. Tennessee commercial and industrial electricity consumption maintained sharp growth for a third month in May. The U.S. coincident index also rose in May, following a significant decline in April.



Despite the rather good indicators for May, labor markets in Tennessee are now displaying sustained weakness, with nonagricultural employment falling for three consecutive months. In spite of this, the Tennessee unemployment rate has remained relatively low at 5.1 percent. The manufacturing sector in Tennessee remains fragile according to data for May. The Federal Reserve Board slightly eased credit recently, but this minor deviation from the board's tight monetary policy is not expected to lower interest rates substantially. Some future relief for interest-sensitive sectors, such as manufacturing, may result from federal deficit reduction. Deficit cuts should decrease interest rates, and any such decreases will be accommodated by the Federal Reserve according to chairman Alan Greenspan.

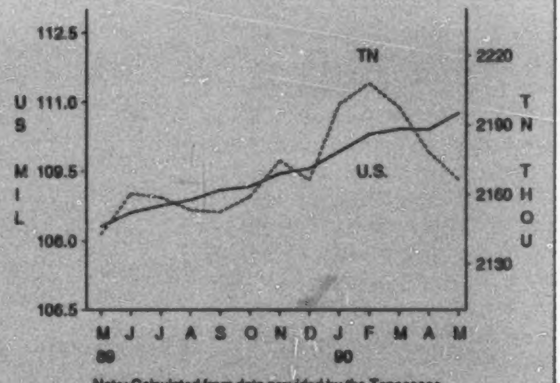
The continuing slow growth in both the U.S. and Tennessee economy remains a concern as a sign of currently prevailing weakness throughout the nation. However, the May indicators are a good sign that conditions are not deteriorating.

FIGURE 1
Coincident and Leading Indexes



P = peak; T = trough

FIGURE 2
Total Nonagricultural Employment
Seasonally Adjusted



Note: Calculated from data provided by the Tennessee Department of Employment Security.

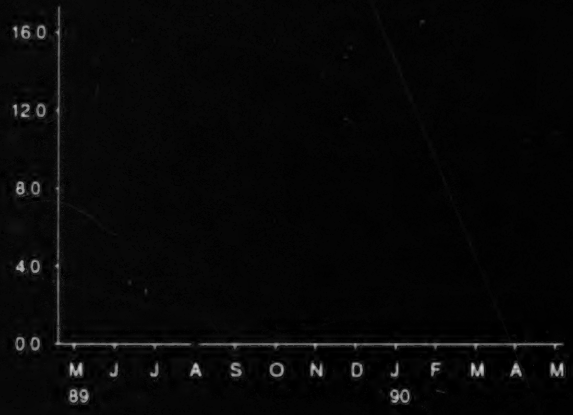
Tennessee Economic Indicators
Seasonally Adjusted

	5/89	6/89	7/89	8/89	9/89	10/89	11/89	12/89	1/90	2/90	3/90	4/90	5/90	1987	1988	1989
US Personal Income (BIL 82 $) (1)	3551.1	3559.6	3569.2	3579.8	3579.4	3588.8	3610.1	3613.7	3605.0	3614.9	3626.7	3630.4	3635.6	3321.0	3433.9	3569.4
% Chg Prev Month SAAR	-2.32	2.91	3.29	3.62	-0.14	3.18	7.37	1.20	-2.85	3.34	3.99	1.22	1.74	3.33	3.40	3.95
% Chg Same Month Last Yr	3.80	3.82	3.76	4.05	3.94	3.02	4.17	3.70	2.42	2.02	1.88	2.03	2.38	3.33	3.40	3.95
US CPI, All Urban Consumers (1982-84=100)	123.8	124.1	124.5	124.5	124.8	125.4	125.8	126.3	127.7	128.3	128.9	129.1	129.3	113.7	118.3	124.0
% Chg Prev Month SAAR	4.98	2.95	3.94	0.00	2.93	5.92	3.90	4.88	14.14	5.79	5.76	1.88	1.87	3.67	4.06	4.80
% Chg Same Month Last Yr	5.27	5.08	4.97	4.62	4.35	4.50	4.57	4.64	5.19	5.25	5.22	4.70	4.44	3.67	4.06	4.80
TN Nonag Employment (THOU) (2)	2142.9	2160.5	2158.9	2153.4	2152.6	2159.2	2174.7	2166.3	2199.1	2208.1	2197.8	2178.4	2166.4	2011.0	2091.9	2153.6
% Chg Prev Month SAAR	-0.26	10.31	-0.87	-3.05	-0.42	3.76	8.96	-4.55	19.77	4.98	-5.45	-10.09	-6.39	4.23	4.02	2.95
% Chg Same Month Last Yr	3.05	3.19	2.89	3.01	2.81	2.90	2.06	2.14	3.07	2.87	2.18	1.63	1.10	4.23	4.02	2.95
US Nonag Employment (MIL)	108.3	108.6	108.8	108.9	109.1	109.2	109.5	109.6	109.9	110.3	110.4	110.4	110.8	102.2	105.6	108.6
% Chg Prev Month SAAR	2.34	3.34	1.78	1.33	2.33	0.83	3.13	1.30	4.03	4.15	1.35	-0.28	3.94	2.69	3.31	2.85
% Chg Same Month Last Yr	3.06	2.89	2.84	2.77	2.72	2.53	2.46	2.31	2.32	2.41	2.35	2.13	2.26	2.69	3.31	2.85
TN Unemployment Rate (%) (2)	5.2	5.2	5.0	5.0	4.8	5.1	5.2	5.3	5.1	5.1	4.9	4.9	5.1	6.6	5.8	5.1
US Unemployment Rate (%)	5.2	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.2	5.4	5.3	6.2	5.5	5.3
Bank Prime Interest Rate (%)	11.5	11.1	11.0	10.5	10.5	10.5	10.5	10.5	10.1	10.0	10.0	10.0	10.0	8.2	9.3	10.9
US Coincident Composite Index (1982=100)	132.5	132.8	132.6	133.9	133.5	133.0	133.6	134.0	132.8	134.2	134.5	134.0	134.2	122.4	128.2	132.9
% Chg Prev Month SAAR	-2.68	2.75	-1.79	12.42	-3.53	-4.40	5.55	3.65	-10.23	13.41	2.72	-4.37	1.81	3.15	4.72	3.63
% Chg Same Month Last Yr	4.17	3.59	3.11	3.80	3.49	1.99	2.53	2.21	0.76	1.67	1.89	0.90	1.28	3.15	4.72	3.63
US Leading Composite Index (1982=100)	144.2	144.0	144.1	144.8	145.0	144.4	144.6	145.3	145.3	143.8	145.2	145.1	146.2	140.1	142.8	144.9
% Chg Prev Month SAAR	-12.40	-1.65	0.84	5.99	1.67	-4.85	1.67	5.97	0.00	-11.71	12.33	-0.82	9.49	5.90	1.93	1.46
% Chg Same Month Last Yr	1.69	0.00	0.77	0.49	0.90	0.28	0.35	0.14	-0.48	-1.24	0.35	-0.48	1.39	5.90	1.93	1.46
TN Coincident Composite Index (1/74=100)	125.8	126.0	125.1	125.9	126.3	126.3	126.3	126.6	127.0	125.0	126.2	126.7	126.1	118.6	122.9	125.8
% Chg Prev Month SAAR	-6.13	1.65	-8.24	8.16	4.02	-0.04	-0.04	2.53	4.38	-17.48	12.44	4.85	-6.34	3.24	3.57	2.39
% Chg Same Month Last Yr	2.72	3.03	1.79	1.56	2.60	1.02	2.36	2.08	1.69	0.34	0.90	0.20	0.18	3.24	3.57	2.39
TN Leading Composite Index (1/74=100)	113.5	113.3	112.6	113.6	113.6	112.6	113.3	112.4	113.9	113.8	112.8	112.9	113.2	112.7	113.4	113.4
% Chg Prev Month SAAR	-9.47	-2.03	-7.81	12.03	-0.18	-9.87	6.88	-9.35	18.05	-1.29	-9.81	1.11	2.95	2.10	0.63	0.00
% Chg Same Month Last Yr	0.16	-0.88	-1.16	0.26	0.21	-0.73	-0.47	-1.48	-0.01	-0.29	-0.76	-1.36	-0.30	2.10	0.63	0.00
TN Comm & Ind Elect Consumption (MIL KWH) (3)	2305	2347	2281	2294	2338	2326	2399	2381	2486	2254	2307	2349	2370	25124	26796	27784
% Chg Prev Month SAAR	1.32	24.61	-28.94	7.06	25.55	-6.29	45.16	-8.65	67.50	-69.14	32.32	24.60	11.04	3.26	6.66	3.69
% Chg Same Month Last Yr	4.33	7.04	1.55	1.14	3.90	2.27	6.17	4.69	10.41	-0.58	0.61	2.06	2.84	3.26	6.66	3.69
Help Wanted Index, Memphis (1967=100) (4)	147	142	139	140	143	148	135	138	140	131	139	144	131	143	144	143
% Chg Prev Month SAAR	-47.05	-33.98	-22.60	8.98	28.97	51.05	-66.82	30.18	18.85	-54.95	103.67	52.82	-67.87	13.91	0.93	-0.87
% Chg Same Month Last Yr	-1.34	0.71	-0.71	-6.67	2.14	-4.52	0.75	2.22	-4.11	-5.07	-2.11	-7.10	-10.88	13.91	0.93	-0.87
TN Mfg Employment (THOU) (2)	522.5	525.9	524.8	524.5	522.8	524.1	527.1	523.8	530.0	530.1	527.3	522.7	521.0	497.4	511.9	523.8
% Chg Prev Month SAAR	-0.83	7.97	-2.36	-0.71	-3.96	3.06	7.12	-7.23	15.26	0.26	-6.23	-9.92	-3.92	1.40	2.92	2.33
% Chg Same Month Last Yr	2.68	2.99	2.26	2.62	2.12	2.05	1.89	1.44	1.90	1.37	0.64	-0.03	-0.29	1.40	2.92	2.33
US Mfg Employment (MIL)	19.7	19.6	19.6	19.6	19.6	19.5	19.5	19.5	19.4	19.5	19.4	19.4	19.4	19.0	19.4	19.6
% Chg Prev Month SAAR	-0.31	-1.03	-0.06	-0.30	-5.07	-1.34	-1.22	-1.71	-7.95	6.18	-1.77	-1.23	-1.66	0.31	1.99	1.08
% Chg Same Month Last Yr	1.62	1.29	1.03	1.13	0.66	0.16	-0.20	-0.51	-1.49	-1.00	-1.31	-1.37	-1.48	0.31	1.99	1.08
TN Mfg Avg Weekly Hours (2)	40.9	41.4	41.3	41.0	41.3	40.6	39.9	39.0	39.2	38.6	38.9	37.6	39.1	41.6	41.6	40.8
% Chg Prev Month SAAR	-6.80	14.67	-3.02	-7.53	8.01	-18.74	-19.15	-24.37	6.83	-17.16	9.66	-32.18	55.95	0.77	0.08	-1.82
% Chg Same Month Last Yr	-1.48	-0.96	-0.67	-0.24	0.68	-0.78	-3.84	-6.08	-4.59	-5.85	-6.06	-8.63	-4.62	0.77	0.08	-1.82
TN Taxable Sales (MIL $) (5)	3452	3504	3465	3472	3459	3458	3498	3440	3636	3840	3633	3625	3530	37583	39841	41407
% Chg Prev Month SAAR	24.58	19.56	-12.39	2.41	-4.32	-0.30	14.43	-18.15	94.67	92.55	-48.53	-2.62	-27.25	6.26	6.01	3.93
% Chg Same Month Last Yr	5.31	1.00	4.79	7.27	4.04	4.97	3.50	1.00	7.48	14.13	3.14	6.96	2.28	6.26	6.01	3.93
TN Taxable Sales (MIL 82 $) (5)	2788	2823	2783	2789	2772	2758	2780	2723	2847	2993	2819	2808	2730	33040	33665	33388
% Chg Prev Month SAAR	18.67	16.13	-15.71	2.41	-7.04	-5.88	10.14	-21.95	70.55	82.02	-51.33	-4.42	-28.59	2.49	1.89	-0.82
% Chg Same Month Last Yr	0.03	-3.88	-0.18	2.53	-0.29	0.45	-1.02	-3.48	2.18	8.44	-1.98	2.16	-2.08	2.49	1.89	-0.82
Initial Claims For TN UI (THOU) (2)	38.7	40.8	42.1	43.9	38.4	42.3	41.3	42.1	43.4	40.2	42.7	44.9	46.5	439.2	417.2	466.1
% Chg Prev Month SAAR	1052.5	87.0	46.9	63.0	-79.8	222.7	-24.9	24.4	44.8	-59.8	101.7	85.1	50.4	-14.2	-5.0	11.7
% Chg Same Month Last Yr	15.94	19.73	47.15	14.16	3.41	18.57	8.49	29.14	23.19	16.51	21.77	42.22	20.03	-14.20	-5.01	11.72
Continued Weeks Claimed For TN UI (THOU) (2)	182.6	173.8	181.7	194.9	172.8	202.0	203.2	185.3	216.6	197.5	187.9	219.1	234.2	2061.5	2063.2	2172.4
% Chg Prev Month SAAR	266.9	-44.7	68.9	132.2	-76.4	550.8	7.3	-66.8	550.1	-67.0	-44.9	531.4	122.6	-10.5	0.1	5.3
% Chg Same Month Last Yr	7.46	2.89	18.63	-1.73	3.51	18.66	4.35	18.93	24.83	18.35	9.34	33.73	28.28	-10.51	0.08	5.29
Total TN Construction Starts (6)	441.1	451.5	399.7	466.6	466.6	437.7	431.7	393.6	457.7	422.7	384.6	474.9	483.4	5330.5	5283.8	5340.8
% Chg Prev Month SAAR	-93.5	32.2	-76.8	540.4	0.0	-53.6	-15.2	-67.0	511.1	-61.5	-67.9	1157.2	23.8	1.2	-0.9	1.1
% Chg Same Month Last Yr	-5.66	-6.38	-3.45	4.28	5.65	2.09	-12.01	-13.36	4.54	-10.15	-1.45	-14.24	9.58	1.22	-0.88	1.08
Value Of TN Constrc Starts (MIL 82 $,NSA) (6)	394	403	295	436	371	291	275	304	255	228	275	271	303	4495	4240	3934
% Chg Prev Month SAAR	84.1	30.2	-97.6	10758.8	-85.8	-94.5	-50.1	240.8	-88.2	-73.1	835.0	-17.4	292.2	7.9	-5.7	-7.2
% Chg Same Month Last Yr	-10.33	4.13	-33.42	-5.19	14.28	-26.08	-6.16	-2.56	-8.21	-0.98	-2.34	-27.72	-23.01	7.86	-5.67	-7.24

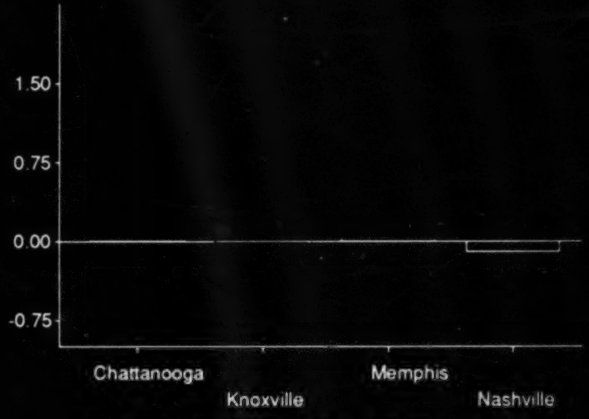
	87/I	87/II	87/III	87/IV	88/I	88/II	88/III	88/IV	89/I	89/II	89/III	89/IV	90/I	1987	1988	1989
US GNP (BIL 82 $) (1)	3783.0	3823.5	3872.8	3935.6	3974.8	4010.7	4042.7	4069.4	4106.8	4132.5	4162.9	4174.1	4193.4	3853.7	4024.4	4144.1
% Chg Prev Qtr SAAR	5.40	4.35	5.26	6.65	4.04	3.66	3.23	2.67	3.73	2.53	2.97	1.08	1.86	3.65	4.43	2.97
% Chg Same Qtr Last Yr	1.66	3.21	4.32	5.41	5.07	4.90	4.39	3.40	3.32	3.04	2.97	2.57	2.11	3.65	4.43	2.97
TN Personal Income (MIL $) (1)	61117	62062	63159	65418	65847	67389	68450	69820	71153	72548	73530	74518	NA	62939	67877	72937
% Chg Prev Qtr SAAR	13.18	6.33	7.26	15.09	2.65	9.70	6.45	8.25	7.86	8.08	5.53	5.48	NA	8.80	7.84	7.46
% Chg Same Qtr Last Yr	8.14	8.31	8.27	10.40	7.74	8.58	8.38	6.73	8.06	7.66	7.42	6.73	NA	8.80	7.84	7.46
TN Personal Income (MIL 82 $) (1)	51970	52065	52414	53709	53753	54390	54716	55194	55588	55892	56388	56539	NA	52540	54513	56102
% Chg Prev Qtr SAAR	6.41	0.73	2.71	10.26	0.32	4.83	2.42	3.54	2.89	2.20	3.60	1.07	NA	3.86	3.76	2.91
% Chg Same Qtr Last Yr	4.28	3.13	3.06	4.96	3.43	4.46	4.39	2.76	3.41	2.76	3.06	2.44	NA	3.86	3.76	2.91

1. Annual Rate.
2. Calculated from data provided by the Tennessee Department of Employment Security.
3. Source: Tennessee Valley Authority.
4. Source: The Conference Board.
5. Calculated from sales tax collections, provided by the Tennessee Department of Revenue.
6. Source: F.W. Dodge Division of McGraw-Hill Information Services Company.

Percent Change in the U.S.
Consumer Price Index
Seasonally Adjusted Annual Rate

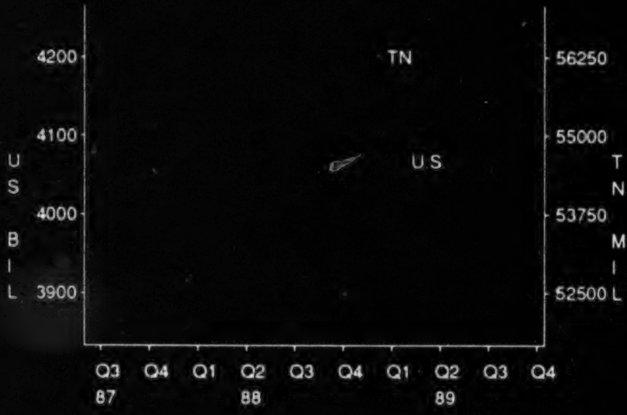


MSA Nonagricultural Employment Growth
May, 1989 - May, 1990

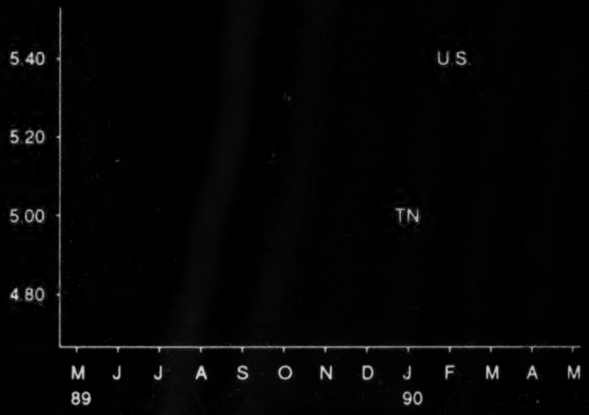


Note: Calculated from data provided by the Tennessee Department of Employment Security.

Real Personal Income
Seasonally Adjusted Annual Rate
1982 Dollars



Civilian Unemployment Rates
Seasonally Adjusted



Note: Calculated from data provided by the Tennessee Department of Employment Security.

The University of Tennessee
Summer 1990

Survey
OF BUSINESS